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## CONTENTS

	PAGE
I. THE PRESENT CONDITION OF ECONOMIC HISTORY <i>N. S. B. Gras</i>	209
II. THE COST OF LIVING FOR WORKING WOMEN: A CRITICISM OF CURRENT THEORIES <i>Dorothy W. Douglas</i>	225
III. RAILROAD VALUATION BY THE INTERSTATE COM- MERCE COMMISSION. II. - - <i>Homer B. Vanderblue</i>	260
IV. WHAT IS RURAL ECONOMICS - - - <i>John Ise</i>	300
V. THE GOVERNMENT AND THE NEWSPRINT PAPER MANUFACTURERS - - - - <i>E. O. Merchant</i>	313
VI. THE SCOPE AND NATURE OF THE LABOR TURN- OVER PROBLEM - - - - <i>Sumner H. Stichter</i>	329
VII. THE SEPARATION OF RAILWAY COSTS BETWEEN FREIGHT AND PASSENGERS - <i>Julius H. Parmelee</i>	346
NOTES AND MEMORANDA:	
A Unique Arbitration Case - - - <i>William Z. Ripley</i>	363
Economics in the British Workers' Educational Association <i>Herbert Feis</i>	366
The Capitalization of the Land Tax - - <i>H. G. Hayes</i>	373
REVIEW:	
Keynes, The Economic Consequences of the Peace <i>F. W. Taussig</i>	381

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## CONTENTS FOR AUGUST, 1919

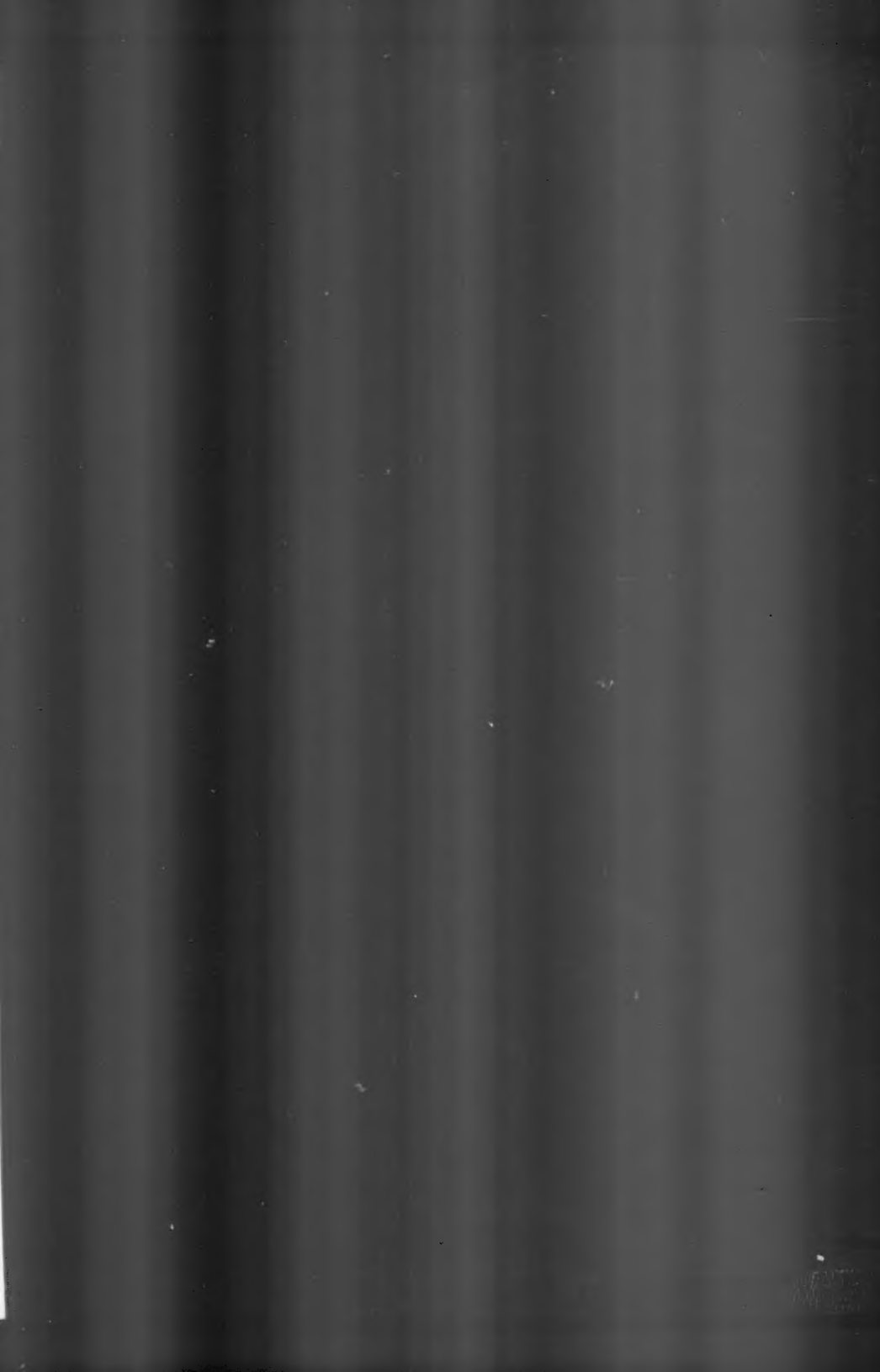
I. FEDERAL OPERATION OF RAILROADS DURING THE WAR	Frank Halgh Dixon
II. NORMAL PRICE AS A MARKET CONCEPT . . . . .	E. G. Nourse
III. ON STABILIZING THE DOLLAR . . . . .	Edward T. Peters
IV. GOVERNMENT CONTROL OF SUGAR DURING THE WAR	Joshua Bernhardt
REVIEW:	
Walsh's <i>The Climax of Civilization; Socialism; and Feminism</i>	T. N. Carver
NOTES AND MEMORANDA:	
One of the Physical Foundations of Economics . . . . .	Julius Davidson
A Definition of "Conditions of Labor" . . . . .	Paul H. Douglas
Another Reason Why War Prices Are High Prices . . . . .	G. O. Virtue
An Oversight in the Theory of Incidence . . . . .	H. G. Brown

## CONTENTS FOR NOVEMBER, 1919

I. THE PRESENT AND FUTURE OF THE INTERNATIONAL TRADE OF THE UNITED STATES . . . . .	F. W. Taussig
II. RAILROAD VALUATION BY THE INTERSTATE COMMERCE COMMISSION. I . . . . .	Homer B. Vanderblue
III. BRITISH INDUSTRY AND THE AMERICAN EMBARGO . . . . .	Louis Martin Sears
IV. A DIVISION AMONG THEORISTS IN THEIR ANALYSIS OF PROFITS . . . . .	C. J. Foreman
V. PRICE FIXING AND THE THEORY OF PROFIT . . . . .	Kemper Simpson
VI. DEBTS, REVENUES AND EXPENDITURES, AND NOTE CIRCULATION OF THE PRINCIPAL BELLIGERENTS . . . . .	Louis Ross Gottlieb

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THE  
QUARTERLY JOURNAL  
OF  
ECONOMICS

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FEBRUARY, 1920

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THE PRESENT CONDITION OF  
ECONOMIC HISTORY <sup>1</sup>

SUMMARY

Treatises of the past decade, 209. — Economic history has been studied by periods, 213. — The genetic point of view, 214. — The content of economic history, 217. — Need of a synthesis of development, 218. — Dependence of economic history on history and economics, 220. — Conclusion, 224.

Of late years economic history, in common with other studies, has suffered from the effects of the great war, both in diminished production and in the death on the field of battle of some of its younger devotees. And each of the four great countries contributing to the field of economic history has lost from natural causes at least one of its distinguished scholars. Levasseur's long career of useful work came to a close early in the decade. He had begun to contribute to our knowledge of French economic history as far back as 1854; he died before the second volume of his *Histoire du Commerce de la France* left the press in 1912. Levasseur occupied at the Collège de France the only chair in France that resembled economic history. In America, Callender died before

<sup>1</sup> Read at the annual meeting of the American Historical Association, December 29, 1919.

attaining the ripeness of scholarship which his early work promised. He has been a model for younger men, and his influence lives.

Germany no longer has before it the colossal figure of a Schmoller, surrounded by a seminar of disciples destined to spread his influence in distant parts and fulfill his wish for more careful special studies on economic history. Schmoller was an historical economist, but his methods called for painstaking researches in economic history. His influence in our generation, upon such scholars as Ashley,<sup>1</sup> Gay, Seligman, and Unwin, may be compared with that of Ranke in the field of political history a generation or so ago. It seems probable that the work of Ranke will be more enduring than that of Schmoller. Economists have expressed themselves as disappointed with Schmoller's life work, as partially summed up in his *Grundriss*. The historical method, as applied to economic studies, seems in large part to have failed at the hands of both the younger and older group of historical economists.

A few months ago Cunningham, the dean of English economic historians, passed away. He left but one work of importance and that practically his first, published in 1882 but greatly extended in subsequent years. It was the first textbook which covered even approxi-

<sup>1</sup> Sir William Ashley, brilliant among economic historians, wrote on April 10, 1919, concerning his introduction to economic history: "My undergraduate training was as a historian, in the Oxford History School which was so largely the creation of Stubbs. Then, as a young graduate, I was greatly impressed by the lectures of Arnold Toynbee, under whom also I did some little personal work. I happened also upon the *Essays* of Cliffe Leslie — and I can still remember the novel glow of conscious mental enjoyment with which I read them. His book made me aware of the German Historical School of Economists; and I found in Schmoller's writings — such as the *Kleingewerbe* and in some things of Schönberg on *Zünfte* — examples of the way in which the institutional bias I had received from Stubbs could be continued with the Economic interest, I will not say created but at any rate strengthened, by Toynbee. Of course at the back of it all, I suppose, are the facts that I was myself the son of a London artisan, and also came from a very serious nonconformist circle. And the ultimate purpose of all my early mediaeval studies was to cast light on the general movement of Economic evolution and especially on its most recent stages."

mately the whole of English economic history.<sup>1</sup> Cunningham's work has been criticized frequently. It cannot stand the test of more specialized research, it often confuses the most important issues, and nowhere does it stimulate to further study, except by way of correction. But it remains a useful compilation of facts put together so as to show certain causal relations, especially in so far as these may be found in parallel studies of economics, politics, and religion.

Fortunately we still have with us some of the pioneers. Bolles, the first to write an *Industrial History of the United States* (1878), has informed me that he undertook his task because a larger coöperative work of the same character had failed, and he saved all there was from ruin. Germany still has Brentano and Bücher, tho the latter is not, strictly speaking, an economic historian. The first volume of Bücher's *Lebenserinnerungen*, which we await with interest, is to appear soon. Altho these men, now dead or aging, have played their part, their influence continues. Studies of the kind made when they were at their height have also been made during the last decade—careful minute researches in widely scattered fields of activity.

Perhaps out of the mass of scattered researches recently published, we are justified in selecting three subjects of special significance: enclosures, capitalism, and labor. The enclosure movement has trained the wits and taxed the industry of scholars on both sides of the

<sup>1</sup> On February 22, 1919, Cunningham described his earliest steps, in the following words: "It was rather accidentally that I came to devote myself to Economic History. It had a place in the History Course at Cambridge from the first (1878), and as there was no teacher of the subject, I was asked by the History Board to do my best with it. I had some knowledge of Political Economy and did my best to get up the History: I found a textbook was much needed and managed to write one in 1880. I see from the authorities quoted that I was acquainted with Schans, Oehenkowaki and Brentano, but my chief personal and conscious debt was to Roscher whose monograph on eighteenth century English writers was most instructive. I tried to understand what pamphleteers and others were aiming at, and to read the facts of the time in the light of the ideas of the time, as far as I could."

Atlantic. It has thus far reached its culmination, tho perhaps not its conclusion, in the work of Tawney, one of the finest products of the decade.

Sombart was the first to give a really historical turn to studies on capitalism. He blazed the path in the direction of the origin of capitalism and, within our decade, in the direction of the psychological side of its development. His chief enduring work, however, will be to stimulate others. In Sombart's own country, Heynen and especially Strieder have made important additions to our knowledge, and in England we note the contributions of Scott and Unwin.

The history of labor is still in the pioneer stage, but in America it has been carried a step farther by the volumes of Commons. The fact that three out of the four papers on economic history read at this session of the Historical Association deal with the history of labor, is not without significance. Our current researches reflect the world's interest in capitalism and labor, and we can with difficulty avoid the conclusion that these will occupy the centre of interest for years to come. On these subjects we need studies in great numbers. It goes without saying, that to be useful, they must be above all impartial and objective, unlike the book called *The Town Labourer*, recently written by the Hammonds.

If one were to set before himself the task of enumerating work of high excellence by individuals, published during the last ten years, he would be compelled to mention Scott's three volumes on the early *Joint Stock Companies* (1910-12), Lloyd's *Cutlery Trades* (1913), and Gray's *English Field Systems* (1915). As these books exemplify, the progress has been substantial; but it has been practically all in the direction of monographic studies. At the other extreme, of course, are the numerous textbooks, more or less elementary and aiming

at general presentation; but with these we are not now concerned.

In the study of economic history we find that, while economists are primarily interested in *topics*, especially those of recent development, historians have a preference for specialization in some *period* of history. Whether the historian has made his choice by way of reaction from the older accounts, such as that of Adam Anderson, which began at the creation, or whether it is in imitation of the laudable example of nineteenth century political historians, I do not know. If the latter, then the imitator, to be logical, should include contemporary foreign institutions and should make comparative studies.

Certainly the choice of periods has some justification in the able work of Schanz, Below, and Vinogradoff. But there is one objection to it which is gradually being perceived. In the hands of lesser scholars it leads to the erection of stone walls at the beginning and at the end of the periods in question.<sup>1</sup> To perceive the sum total of development in one's own field, no matter how inadequate that perception may be, is the task of the specialist; to understand the causal forces behind that development is the goal. But it is one often beyond his reach.

A distinguished American economist has belittled the study of the past for every reason except to show that it is different from the present. He holds that the institutions of the present have not grown out of the past but have arisen out of needs developed in modern times. Stubbs has aptly expressed the contrary, namely, that the roots of the present lie deep in the past. All economic history, all institutional history in fact, proves

<sup>1</sup> By the principle of development or evolution, alone, can researches in the natural or social sciences be summed up.

this. The Industrial Revolution was but a quickening pace of society. Perhaps the studies of the future will show in detail that the Industrial Revolution, like the French, was a continuation and an accentuation of a slowly developing movement — the influence of the market on industry and agriculture and the growing dominance of the man possessing capital over the man possessing none.

The practice of studying economic history by periods is at its worst when the periods studied are political. It is not to be expected that economic history could at once throw over the political traditions of a generation, but it is a reasonable hope that this is the ultimate goal.

At the opposite pole from the historian who deals with closed periods of history is the broad sweep of the genetic economist who knows neither time nor place. The extremes of each method are perhaps equally objectionable, but the advantages of genetic studies have been too clearly demonstrated to be longer ignored. The essentials of changes in any field can be summed up and expressed with emphasis in the form of stages of development, not of history. A few pages can elucidate a volume of facts. Moreover, the whole development from first to last is perceived and the present and past can be connected. Genetic studies would provide a leaven for an otherwise undirected and uninteresting subject. The view of Hildebrand that the exchange of goods has passed through three stages, barter, money, and credit, has been a stimulus to research that has no doubt discredited the stages in question, yet has led to the discovery of new ones and has given rise to an emphasis upon the exchange of goods which, however misplaced by some, remains fundamental.

No one who pursues the genetic trail far, can fail to see its possible shortcomings. It is difficult, indeed,

when following the line of development to stop at the proper places for the study of causation. As we trace the stages through which agriculture has passed, we may forget the influences that determine the changes; for example, the growth of a metropolitan demand for foodstuffs or a shift in industrial production which robs the countryside of its manufactured by-products. Forewarned, however, is forearmed, and the guilt of neglecting causes may be expected to be peculiar to individual scholars rather than to the method of approach.

In genetic treatment lies the danger, on the other hand, of a return to deductive study as contrasted with deductive presentation of results. There is a suggestion of this evil in Lloyd's *Cutlery Trades*; and in Miss Hazard's *Boot and Shoe Industry in Massachusetts* (1913) we have an apparently well-developed case. While Lloyd follows the accepted stages of industrial development in England, Miss Hazard follows more or less closely those of German history. The obvious danger is that historical researches will tend to find illustrations for preconceived theories of development.

Genetic studies are usually held to be incompatible with comparative studies. He who travels far cannot cover a wide area. Those valuable comparisons and checks to generalizations which are based on narrow research are not so likely to be made. The success of comparative studies in religion and philology is paralleled by similar studies in history, notably in the work of Gross on the gild merchant, Haskins on Norman institutions and Meitzen and Gray on village settlements. But it should be noted that in one sense genetic studies are fundamentally comparative. One stage is compared with another, rather than the institutions of one country with those of another. An obvious advantage of

such comparison would be the avoidance of anachronism, the ever-present sin of historiography. Unquestionably the ideal would be to cast aside the apparent contrast of comparative and genetic studies familiar to the biologist, and to create a larger genesis based on parallel developments in various lands and continents. Investigations of ancient Roman history, based on a study of tribal conditions among the barbarous peoples of modern times, show how genetic a comparative study may become. The same would be true of studies of out-of-the-way places in the world such as missionaries might today be making for us, if only there were some agency for organizing and utilizing their services.

The genetic point of view is as ancient as Hesiod and Vergil. It has been applied to economic development in recent times by Storch, List, Roscher, Schmoller, and Bücher. It is historical economics without the particular affiliations of either the younger or the older school. The logical result is a science of genetic economics, or a theory of economic history. It is to be noted that this is not economic history and never can be treated as such. The former deals with theories of what the past has been; the latter with the facts of the past. But genetic economics would be a stimulus to economic history itself; and it would prepare for the use of the economist and the sociologist materials which otherwise are beyond their reach. The historian sometimes marvels at the theorist's easy leap from primitive times to the era beginning with the Industrial Revolution, and at the nonchalance with which he ignores well worked-out historical developments of the intervening period. It is just here that genetic economics might step in, to provide the missing link between intensive detailed historical studies and theoretical exposition of the main developments.



It must be confessed that our faith in the leavening effect of theory on a study of facts has not always been justified. Altho economic history has for generations been dealt with by economic theorists, it has never evolved an adequate content, or an analysis of its own scope, comparable to that of economics itself. The content of economic history results from the practices of economic historians of the period 1750-1850 — historians such as Anderson, Gülich, and Torrens. Apparently Torrens was the first, or nearly the first, to write an *Industrial History* (1846). This title, adopted by many successors, places emphasis upon industry in a large sense, in other words, production. It implies that there is no recognized place for distribution. When economic history came under the influence of historical economics in the latter half of the nineteenth century, there was some disposition to turn to distribution. Thorold Rogers made an historical study of wages but found very few followers, none to labor on the same scale. The work of Steffen did not prove constructive or suggestive. Just before the beginning of the late war several articles appeared in English and German journals on the subject of the regulation of wages in England from the Black Death onward. These tended to modify considerably the conclusions of Rogers on the subject, but up to date have not been brought to a head. Generally speaking, economic historians, as distinct from historical economists, are still interested primarily in production. At times they deal with the factors of production — the orthodox land, labor, capital, and management; but their chief concern is with the processes of production, such as agriculture, manufacture, and commerce. In the handling of these, there has been too little advance since the eighteenth century.

But this is not all. Even the treatment of the processes of production is incomplete. Collectional production, the economic cultures (other than agriculture), and storage or the production of time utility, are generally ignored, at best but lightly dwelt upon. Storage is today one of the three divisions of commerce, the other two being the transportation and the exchange of goods. Neither of the last two functions can be performed to any great extent under modern conditions without a well developed system of storing or warehousing. Nor can we carry on agriculture or manufacture without it. The neglect of storage is probably a survival of the medieval attitude toward this kind of production; it was then ignored, or when considered, condemned. But developments of recent times help us to visualize the function, especially when we see the urban warehouse become the nucleus of a great marketing enterprise, and a rural grain elevator become the means not only for selling the products of the district but for purchasing supplies from the outside.

The time is perhaps ripe for suggesting possibilities of another kind. Without ceasing to write special treatises, we might well devote more attention to synthesis; to put together some of the isolated researches and to give direction to future studies. Possibly some of us have become impatient with economic history because it turns to this field and to that, as some current need dictates — at present to capital and labor, neglecting other important phases of its recognized interests which are necessary to an understanding of the whole. I believe that in the long run the best interests of the subject demand a balancing of the two: the study both of the pressing problems of the present from the historical viewpoint, and of those neglected branches of economic history needed to round out our subject. The

desire for synthetic studies alternates with the demand for analytic studies. We can see this swing of the pendulum taking place at different times from the early eighteenth century to the late nineteenth. The last swing has been toward special studies in reaction from the over-hasty generalizations of the older historical economists. It has crystallized around the school of Schmoller.

Any important synthesis at the present state of our subject must be made with a central theme. The problem, then, is to find this theme, something around which all else turns. There can hardly be unanimity of opinion as to what this is; but there seems to be an increasing tendency to accept the function of exchanging goods as the centre about which all else really moves. Of course, if we have historical development in mind, we should broaden this into the satisfaction of human material wants, attained at first by direct means and later by exchange. If this procedure proves acceptable, then we shall have such fundamental stages for all kinds of production as the following: production (1) for immediate use by the producer or his kin, (2) for sale directly to the consumer, and (3) for sale through middlemen.

Of course we cannot but pause long and earnestly before synthesizing. It may be a brilliant idea that we need, or it may be a series of painstaking efforts. At any rate we remember the premature essays of anthropologists and sociologists in this direction, some of them as late as Oppenheimer's *Theorie der Reinen und Politischen Ökonomie* (1910). Even more than this, however, is the fear already expressed that economic history has not yet been given an adequate content or a sufficiently wide scope. Synthesis based upon a consideration of production alone can hardly be successful, if we are later to lay equal stress upon distribution. It

may be, however, that our understanding of social evolution would be most advanced if we should divide our work into three fields: economic history dealing with production; social history with distribution; and thirdly the history of economic thought. Whether such a threefold division be maintained or not, each one of the three will have to be studied with the others in mind. This is the larger synthesis.

Perhaps most of the ills from which economic history suffers are due to its continued dependence on history and economics, on historians and economists. In this dependence there is, to be sure, the advantage of getting stimulus from outside; but it gives rise to countervailing disadvantages. One of them is the lack of specialists. Yet economic history is a relatively old science. It was well under way in the eighteenth century, as we have observed. Omitting all reference to the numerous works that appeared in that century and in the early part of the next, we may note that at least as early as 1853 an academic lecture was delivered on the subject by Inama-Sternegg, and at least as early as 1878 and 1879 the same scholar wrote books bearing the words "economic history" in the title. One of England's leading universities, Cambridge, gave to economic history a place in the curriculum in 1878; tho there are in England today few instructors in the subject.<sup>1</sup> At Harvard in 1883, Dunbar began his course on modern (since 1750) economic history, the precursor of the one still given.

<sup>1</sup> In 1906, according to L. L. Price (*The Study of Economic History*, p. 5), there were instructors in economic history in the following English institutions: one at Oriel College, Oxford, one at Manchester, and two at the London School of Economics. I have learned of no subsequent additions.

The subject is, of course, widely taught in England, as is indicated by the following quotation, but not by those giving their whole attention to it. "Before he [Cunningham] died he saw his subject, which in my time at Cambridge (1890-94) was only one paper in the History Tripos, included in the Economic Tripos, and taught in every University of any standing in the United Kingdom. It spread from there to workers' educational classes, and is now widely taught in secondary schools." Mrs. Knowles, *Economic Journal*, September, 1919, p. 391.

And in 1892 Harvard made Ashley the first professor of economic history in America,<sup>1</sup> probably the first in any country. Even in Germany, the land of so much pioneering in this department of learning, there is, I believe, no chair of economic history and very few courses on the subject, almost none outside of Munich. France has been much worse off.

This dependence has led to a duality of contribution which breaks up the subject into two component parts. While historians are primarily interested in the period before the Industrial Revolution, recent economists are primarily interested in that following the Revolution. The continuity of development, which is as real as that of the English constitution after the Puritan Revolution, is destroyed and the whole movement of history perverted.

Economists, it is said, have of late been losing interest in economic history. If this be so, the dependence of economic history on the efforts of economists involves a distinct loss to our science; especially does it seem so, when we reflect upon the valuable contributions of such economists as Rogers, Jevons, Dunbar, Taussig,<sup>2</sup> and Brentano; and even more so, if we accept the verdict of Professor Seligman that "all the great progress in economic history has come from the economists and not from the historians, or it has come from the historians

<sup>1</sup> Professorships in economic history are now found in at least four American universities, Harvard, Columbia, Yale, and Minnesota. Several professors in other institutions devote their whole attention to the subject but occupy chairs in the department of history or economics.

<sup>2</sup> On July 21, 1919, Professor Taussig wrote: "Professor Dunbar's own investigations were largely historical in character. He had planned a financial history of the United States and it has always been a matter of keen regret to me that he never was able to carry out the project. He had given attention also to a number of topics in economic history outside the United States, especially with regard to financial matters such as the history of assignats in the French Revolution, and the development of Dutch commerce and industry. Perhaps I ought to add that my own work on the Tariff History of the United States had its origin in suggestions made to me by Professor Dunbar shortly after I graduated from Harvard College."

who were primarily trained in economics."<sup>1</sup> Whether the economist has lost, or is losing, interest in economic history because historical economics has become discredited, or because the statistical method as applied to historical data has failed, or because economic history has neglected to keep pace with the change in interest from production to distribution, it is difficult to say. It is only fair to point out that while the economist may be losing interest in economic history as a study, he is, of course, not departing from the old custom of using economic historical data, notably for illustration. It is not improbable that economic history, with its long experience with the subjection of the individual to the producing group, has something special for the economist of the near future, which the economist of the immediate past, reared in a competitive individualistic surrounding, did not possess. In other words, it is reasonable to suppose that with the present growing tendency toward coöperation and regulation which are distinctive of the distant and medieval past, economists will turn more and more to early experiences for a guide to the future. This is, of course, paralleled by the attention which they have recently given to the teaching of psychologists in the field of instincts and emotions, and constitutes a valuable supplement to it.

It may be that the dependence of economic history is responsible for the lack of an encyclopedia of economic history, of a dictionary of economic historical terms, of a single journal of economic history, now that the *Vier-*

<sup>1</sup> It is interesting to contrast this view of Professor Seligman (expressed in a private communication dated May 6, 1919) with that of Sommerlad: "The historian is master in the house [of economic history] which he has built." Quoted by Bräuer, *Kritische Studien . . . Wirtschaftsgeschichte* (1912), p. 189. Probably the two views may be harmonised by saying that historians at first did the building but that historical economists have done the finishing; that historians developed production and economists added distribution. If the views expressed in this paper be correct, the third period will be one in which the specialists in economic history will make over their science in accord with its peculiar needs.

*teljahrschrift für Sozial- und Wirtschaftsgeschichte* is (apparently) defunct, and of a history of how economic history has come into being.

In 1879, Inama-Sternegg said that the ultimate goal was an economic history of mankind, written without regard to territories and states. In 1910 Brodnitz noted that as yet no economic history had been written. And at the close of the decade this is still true; we have no economic historical work of a general character. There are only the many textbooks of single countries, especially England, and innumerable highly specialized and detailed researches. It would be tempting then to say, were it not for doubts already expressed, that now is the time for an economic history of mankind written from the genetic point of view, with a more complete analysis of economic phenomena, and based upon adequate comparative studies. Perhaps the chief value of such a suggestion at this moment is that it may serve as a directive influence to our otherwise scattered studies.

If the dependence of economic history on history and economics has worked on the whole to its disadvantage, the remedy lies in specialization in economic history, without giving up, however, the balance of emphasis and training in the two mother subjects. The historian is apt to be deficient in his understanding of the newer forms of economic analysis, and the economist is likely to know little about the latest historical researches. The problems of economic history are peculiarly enough its own to justify a more independent position. There is a growing interest in our study on the part of those who emphasize the economic interpretation of history; and an equally great interest on the part of those who are absorbed by the increasing prominence of the laboring class and who wish to know the facts of past economic development, facts which may help explain the present

status and point to the future outcome. It is not unlikely that the increasingly large share that is being taken by workmen in the management of the affairs of cities and of states is going to lead to a study of economic history, much as the victory of the middle class led to a study of constitutional and political history. The demand for economic history in the trade schools and secondary schools generally seems to indicate that neither the old history nor the current economics will wholly answer the popular needs of the immediate future.

And so in conclusion we may note that present tendencies are in the direction of greater emphasis on economic history, after a period of partial eclipse; that in the last few years stress has been put upon the history of capital and labor because of the growing antagonism between the two; that this drift might be balanced by other studies which reflect a more complete analysis of the content of economic history; that the chronological and periodic treatment might well be supplemented by the genetic; and that the guidance of economic history, until now in the able hands of historians and economists, might henceforth more profitably be lodged with specialists in the field.

N. S. B. GRAS.

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## THE COST OF LIVING FOR WORKING WOMEN: A CRITICISM OF CURRENT THEORIES

### SUMMARY

I. Five current theories: pin money, joint cost, temporary independence, permanent independence, family support, 226. — II. Shortcomings of current theories, 234. — III. Bases of a theory for the future, 240. — Conclusion, 255.

MINIMUM wage legislation of the present day is based upon the theory that the normal adult woman should be capable of earning enough to support herself; that an industry that fails adequately to maintain its own workers is parasitic upon other industries or upon the public welfare and had better go out of business. This at once raises the question, What constitutes self-support? Is the woman worker to be considered as an independent unit or as the member of a family? If the former, how far is it necessary to look into her industrial childhood and old age? And if the latter, what are her family assets and liabilities? We are thus immediately involved in the whole problem of industrial standards of living. The present paper makes no attempt to envisage this complex problem, but endeavors to deal, however inadequately for that segregation, with the costs of the wage-earning woman alone. In so doing it confines itself to questions of theory primarily, pointing out certain shortcomings in current methods of attack and suggesting certain simple lines of approach toward a future solution.<sup>1</sup>

<sup>1</sup> It is perhaps unnecessary to state that the present writer has not the slightest intention at this time and place of subjecting to criticism or indeed analysis of any sort the general theory of wages (with all its ramifications of productivity, cost, demand, employment) which might be supposed to underlie the establishment of a minimum wage system in the first place. Right or wrong, such a system appears to be firmly entrenched in our American life. Treating it therefore as an accepted fact, our sole concern here will be with its application to the question of cost of living.

## I. CURRENT THEORIES

Five theories at the present time hold sway in various quarters regarding the financial responsibility of the woman worker. They may be described as: (1) the *pin-money theory*, or the theory that a woman's wage should be expected to cover only a part of her expenses; (2) the *joint-cost theory*, or the theory that her wage, in order not to be parasitic, must cover simply her individual expenses in the family group; (3) the *temporary independence theory*, or the theory that her wage must be sufficient to keep her alive while working away from home; (4) the *permanent independence theory*, or the theory that her wage must be sufficient to maintain her in independence through periods of enforced unemployment, through illness and through old age; and (5) the *family support theory*, or the theory that a woman's wage, like a man's, should be based on the cost of supporting dependents.

These theories have arisen in rather rapid succession as woman's place in industry became more assured.<sup>1</sup> At present it is perhaps fair to say that number (1) is regarded as ultra-reactionary by most students of the subject, and number (5) as ultra-radical.

(1) The pin-money theory in its crude form has indeed little to recommend it. It presupposes that the low-paid woman is so well-off on her own account that she can afford to work for a pittance that covers only a part of her necessary expenses. Stated in this way the theory has of course always been absurd. In a subtler sense it has, however, this basis of fact: whether or no

<sup>1</sup> That is, they have arisen in this order as conceptions in the popular mind. In its scientific form Professor Taussig's joint-cost theory was formulated as a criticism of early American minimum wage arguments, which were already based upon the temporary independence theory.

women of the low-paid class theoretically ought to depend in large part upon their families, it is unquestionable that large numbers of them practically do. The theory is itself quite as influential among poor families as among their critics; so that it is no uncommon sight to see a shabby mother on a Saturday night proudly opening the unbroken pay envelope her well-dressed grown daughter hands her, and in return, before the week is out, giving the daughter more than the envelope contained.

(2) The joint-cost theory, or the theory that the true criterion of self-support is the cost of individual living in a family, has received its most adequate formulation at the hands of Professor Taussig. Protesting against the absurdity of outlawing as "parasitic" every industry that fails to pay its women workers half as much as commonly supports a whole family of five,<sup>1</sup> he points out that the great majority of low-paid women live at home and thus share in all the advantages of the household economy. Even at a wage that would be patently insufficient to support her outside, the daughter at home is a distinct financial asset to her parents. If she died or married, they would be poorer, not richer.

(3) The temporary independence theory meets this statement with the query, But what of the girl who does not live at home; who does have to board at commercial rates? Should she not have enough to cover the cost of that temporary absence? Surely she is not so exceptional as to be ignored entirely. Professor Taussig points out that she represents probably from twenty to twenty-five per cent of the female working population; and since the war began her numbers have certainly increased. In all fairness she assuredly needs and deserves

<sup>1</sup> "Minimum Wages for Women," *Quarterly Journal of Economics*, May, 1916, pp. 411-442. See especially pp. 416, 417.

the protection of a legal minimum as high as her daily expenses.

To this Professor Taussig perhaps would reply that insofar as this is true — insofar as the independent woman really is underpaid in proportion to her expenses — she is a proper object for discriminating charity, such as is furnished by subsidized boarding houses, pensions, rather than for higher wages. For, he argues, such assistance is probably necessary in only a minority of cases, since as a rule the very existence of heavy costs stimulates the independent worker to earn enough to cover them. "The stress of need," as he puts it, "leads to more sustained exertion, more professional exertion, so to speak." "The women who must make their way alone are in the main identical with the minority who get the better rates of pay and earn enough for independent living."

With such a contention the majority of the temporary independence theorists would doubtless take issue. They would point out that modern industry is so arranged that the great mass of simple processes engaged in by women are relatively standardized and interchangeable. They do not demand or reward a high degree of mental concentration. Mere effort cannot greatly improve the worth of the individual worker beyond the initial point of making her at all fit for steady work. This is to be seen by the fact that rates of pay for given processes in given establishments do not vary greatly, even when performed by individuals who have served long and faithfully; and that these rates, for the great mass of steady, humdrum work (of which alone the average unskilled worker, be she independent or no, is capable) are low.

Professor Taussig roughly assigns a difference of some 33 per cent to the gap between the "current

woman's wage" of 1915 (\$6) and the "independence minimum" (\$8). Does he seriously believe that such a gap is to be bridged successfully by the average — the great mass — of these independent workers who constitute, he assumes, perhaps from one-fourth to one-fifth of the total female working force; and that by virtue of no better training or organization, but by sheer will power? Increased exertion, the exponent of the independence theory would repeat, doubtless does suffice to save the normally capable woman (whom of course we are alone considering) from such work — and pay — as is allotted to the very careless and irresponsible among her sisters at home. But will it suffice to lift her out of the unskilled class altogether? Practically nothing short of that would give her an independent living wage. The same law holds, but not necessarily the same figures. The worker adrift may be of higher grade. The same law of marginal productivity that Professor Taussig invokes to explain the low wage of the worker at home operates against the worker adrift. Wages that are once pulled down by the family economy of the majority of workers are not likely to be raised by the exactions of the boarding houses frequented by the few.

It is unfortunate that the fuller information for which Professor Taussig asked in 1916 is not yet forthcoming. Segregated figures on the wages of the woman adrift are still very scanty, and are so arranged as not to be strictly comparable among themselves.<sup>1</sup> Such as they are, however, they serve to indicate that, while the average

<sup>1</sup> Many studies use the term "adrift" to include widows and other women who are the chief support of their families, even tho they live at home. Moreover, many studies include in their wage averages very young girls, all of whom would necessarily live at home save in the case of an actual family break-up, and would in no case fall under the rulings of a full minimum wage. Thus the otherwise excellent Fourth Report of the New York State Factory Investigating Commission of 1915 includes in its averages all girls over 14.

for the woman adrift may be somewhat higher than for the woman at home, it is in all probability not sufficiently higher to meet the requirements of a proper independence minimum.<sup>1</sup> In the main, then, we are still dependent upon the same method of informal observation of which Professor Taussig was forced to avail himself three years ago. Using this avowedly tentative method, present advocates of an independence mini-

<sup>1</sup> The following table embodies this evidence. Thus in 1913-14, of over 7400 working women in San Francisco and Los Angeles stores and laundries (of whom 22½ per cent were adrift), 41 per cent of those adrift earned less than \$10 a week as compared with 65 per cent of those at home.

Place (and Industry)	Date	No. women represented	No. and percentage adrift	Lower and upper wage limits of women represented		Per cent of women earning less than stipulated amount		Stipulated amount
				No.	%	At Adrift	At home	
1 California (stores and laundries)	1913-14	7500	1682 22.5	None	None	41	65	\$10 wk.
2 Kansas (all industries)	1913-14	1700	150 9.8	\$4	\$20 wk.	49	63	\$8 wk.
3 Kansas (stores)	1915-16	423	47 10.4	\$5	\$20 wk.	46	56	\$10 wk.
4 District of Columbia (all industries)	1916	600	186 31.0	None	\$1100 yr.	54	64.5	\$500 yr.
5 Massachusetts (hosiery)	1915	1506	169 11.0	\$5	None	84.6	80.7	\$9 wk.
6 Massachusetts (men's clothing)	1916	379	37 9.8	\$5	None	81.1	80.7	\$9 wk.
7 Massachusetts (women's underwear and children's clothing)	1916-17	693	99 14.0	\$5	None	80.8	77.6	\$9 wk.
8 Massachusetts (men's furnishings)	1917	1149	149 13.0	\$5	None	74.5	75.0	\$9 wk.
9 Massachusetts (confectionery)	1918	492	22 4.5	\$6	None	86.4	73.9	\$11 wk.
10 Massachusetts (restaurants)	1918	809	253 31.3	None	None	43	49	\$6 wk.

Nos. 1, 2, 3, are compiled from figures in Second Biennial Report of the Industrial Welfare Commission of California, 1915-16, pp. 39 ff.; Twenty-ninth Annual Report of the Kansas Department of Labor and Industry, p. 69; First Biennial Report of the Kansas Industrial Welfare Commission, respectively. No. 4 is from Monthly Review, U. S. Bureau of Labor Statistics, January, 1918, p. 4. Nos. 5, 6, 7, 8, 9, 10, are compiled from figures of Massachusetts Minimum Wage Commission, Bulletin 10, January, 1916, Table 10, p. 36; Bulletin 13, December, 1916, Table 12, p. 44; Bulletin 14, May, 1917, Table 8; Bulletin 15, December, 1917, Table 7, p. 43; Bulletin 18, January, 1919, Table 10, p. 35; Bulletin 17, September, 1918, p. 68, Tables 20 and 21, respectively.

mum find the following circumstances in support of the *a priori* conclusions given above.

(a) The typical woman adrift is older than the typical worker at home.<sup>1</sup> True, she is more responsible, but she is also less adaptable. She is, therefore, less able to take advantage of sudden shifts of industry; she must stick to the old accustomed process while her younger industrial rival forges ahead. This phenomenon was especially conspicuous during war time. The small proportion of highly paid "war jobs" held by women over thirty was striking even to the most superficial observer.<sup>2</sup>

(b) Another factor that tends to accentuate this lack of adaptability is the timidity born of need and loneliness. The same fear that drives the typical independent worker to more sustained effort, frequently robs her of the courage to run small risks. She is afraid to ask for a raise, afraid to attempt little innovations in her methods of work, afraid still more to face the possibility of a new job with an apprentice wage and possible failure at the end. As to actual unemployment for a few weeks, that is a prospect too menacing to contemplate. "Walking the streets for work" is her equivalent for all that is most dreadful.

(c) The typical woman adrift does not spend enough. So far as superficial observation goes, a very large proportion of women adrift appear to be eking out a cramped and insufficient existence outside of business hours. They certainly do not appear to have successfully bridged the entire gap between current wages and independent subsistence. How many of them will the casual visitor find to have had proper dental and medical attention during the year? How many are living

<sup>1</sup> E. g., of the 7800 California women listed above, four-fifths of the women adrift were aged over 25, while only one-third of those at home had reached this age.

<sup>2</sup> Small, that is, even as compared with the actual number of older women at work. The younger women held a disproportionate share of the better jobs.

in a properly heated room? How many receive adequate food (including lunches?) How many are dressed so as to meet the demands of the weather and of business? How many manage to pay for a little wholesome amusement? How many dare stay away from work during the initial stages of an illness? How many have laid by any savings, aside from burial insurance?

(d) The woman adrift utilizes to the full the opportunities for subsidized boarding. The philanthropic boarding houses for working women in our large cities are perennially in a state of overflow. In spite of the strict regulations and lack of privacy incidental to such living, very large numbers of women are ordinarily clamoring in vain to get in, while other numbers, once in, find it difficult to secure enough to move out and live elsewhere at commercial rates.<sup>1</sup>

In view of all these indications of the inability of the woman adrift to maintain a living wage unaided, conclude the friends of the temporary independence theory, let us by all means fix the legal minimum at a figure sufficient to protect her, a figure that will cover all her current and necessary commercial costs. Let us give her enough every week of her working life to meet that week's expenses.

(4) But how about the weeks of her life when she is no longer working, query the friends of the permanent independence theory? If she has no friends to depend on during her prime, why should she expect to have in her old age? Are her parents likely to return to life then? And how about prolonged illnesses? Or lengthy apprenticeships at a new job? Or the lowering of wages due to gradual superannuation? (Current minimum wage laws allow apprentices as well as minors to work

<sup>1</sup> The usual upper age limit for entrance in these homes is from twenty-five to thirty-five, with preference always given to the youngest girls. Pressure is ordinarily put upon inmates to move out as they reach this limit and to make way for a fresh group.



for a sub-standard rate, and give special permits to old persons.) Who is going to pay for all these costs? Either society through some form of charity, or the woman herself out of the savings she is enabled to make during her prime. The minimum wage scale must be generous enough to include the whole range of the woman's living as well as working days.

(5) True, say the advocates of the family support theory; the minimum should undoubtedly include the worker's whole life. But when did that life begin? At her industrial maturity? A wage is not really self-supporting until it meets the helplessness of childhood as well as that of old age. And besides, many children die before they reach working age. The cost of their partial rearing must be compensated by someone. A working population, female as well as male, should earn enough to replace itself. If it does not, it is parasitic upon another industry or sex. Let equal pay for equal work be the rule where men and women labor side by side; and where their tasks differ, let the criterion be a family standard of support.

The most authoritative formulation of this new theory is to be found in the published standards of the Woman in Industry Service of the Department of Labor. Under Section 2, "The Basis of Determination of Wages," we read, "Wages should be established on the basis of occupation and not on the basis of sex. The minimum wage rate should cover the cost of living for dependents and not merely for the individual."

In elaboration of this passage, Miss Van Kleeck writes,<sup>1</sup> "Women are working to earn a living, and the facts show that many are also supporting dependents. Low wages for women mean an inadequate standard of living in the families in which they are the chief sup-

<sup>1</sup> *Annals of the American Academy of Political Science*, January, 1919, p. 93.

port." And in a letter to the writer<sup>1</sup> she adds, "In making their determinations (i. e. wage boards), it is the scale of wages for men which should be the measuring rod of the proper scale for women." This idea is expressed even more unequivocally in principle No. 2 urged by the conference of trade union women, called together by Miss Van Kleeck under the auspices of the Department of Labor, October 4-5, 1918. "The fixation by wage boards of a minimum wage for women not on the basis of a living for a woman alone, *but for the support of a woman with dependents, just as for a man with dependents.*"<sup>2</sup>

## II. SHORTCOMINGS OF CURRENT THEORIES

No one of these current theories, taken alone, seems to the present writer adequately to represent the facts of the case.

(1) The pin-money theory can of course be dismissed without prolonged consideration. The great mass of laboring women never have worked "for fun" even in war time. The lower paid they are, the more apt are they to come from homes that are themselves submerged, since it is the poverty-stricken family with its immediate need for the earnings of the young that usually fails to provide the high school education or the prolonged industrial training for its daughters that might secure them more desirable positions later on. They, more than anyone else, should be freed from the necessity of continued dependence upon their relatives. The large percentage of girls, therefore, that every survey of women wage-earners lists as being "assisted" by their families is no index whatever of the

<sup>1</sup> November 22, 1918.

<sup>2</sup> Monthly Labor Review, November, 1918, p. 191. (*Italics mine.*)

actual financial prosperity of the group. "Someone to fall back on," "partially dependent," are phrases that have little meaning in this connection. It cannot be too emphatically stated that a greatly underpaid girl cannot help depending upon her family for assistance, no matter how poor they already are.

(2) The joint-cost theory falls short not only in that (as has already been pointed out) it fails adequately to take into account the problem of the woman adrift,<sup>1</sup> but also in that it treats the expenses of the woman at home as supplementary to, rather than an integral part of, the family budget. When Professor Taussig in his simplified family of three adults assigns to the working daughter one-third of the family expenses, he leaves out of account the costs and function of the third member of the family, the mother. This housekeeping mother is not merely one more mouth to be fed, one more factor in the family consumption, she is an economic instrument of the greatest importance producing the very real utility of household economy. Without her, the vaunted family savings could not go on. Her services are just as real a part of the necessary cost of living in a family as are the food she markets and cooks and the clothes she launders. If the working daughter, therefore, is to share evenly in the necessary household expenses, she must bear her share of the mother's costs just as much as her share of the rent or of the fuel bill. An argument based on purely supplementary costs, that would assign her no share in the mother's expenses, should logically assign her no share in the other relatively "fixed" costs of the household—such as rent, fuel, kitchen furnishings, plumbing. These costs would go on in her absence just as inevitably as would the services of the mother. It is true that the family might move

<sup>1</sup> This point has been dealt with in detail in the course of the presentation of the temporary independence argument.

into smaller quarters, but then, the mother might give up housekeeping altogether and go to work herself. This in fact not infrequently happens when a middle-aged couple is left all alone.

It is noteworthy that Professor Taussig, unlike most popular exponents of the joint-cost doctrine (including the majority of working-class parents) does not maintain this extreme "supplementary" view.<sup>1</sup> One is, therefore, presumably safe in assuming that his omission of the mother's services in terms of money value was due to oversight rather than intention.

(3) and (4) The temporary and the permanent independence theories both have the disadvantage of ignoring the great mass of women at home; while the temporary independence theory has the added disadvantage of leaving out of account the important minority who are adrift for long periods of time. Our American minimum wage boards have long been accused of setting rates that are absurdly low, that barely permit the most inadequate hand-to-mouth existence. Without doubt this has at least in part been due to the habit of regarding the working woman's career at short range — as a thing to be provided for from week to week rather than from year to year.

(5) The family support theory, bristling as it does with inconsistencies and hasty generalizations, is as yet so nebulous as to be difficult to criticize. It might not be expected that the more popular branch of its advocates, the trade unionists and feminists of our day, would subject their theory to a very rigorous analysis; but better things were to be hoped of the published statements of a federal agency such as the Woman in Industry Service of our Department of Labor.

<sup>1</sup> He does not ask us to assign to the daughter merely the additional expense to which she puts a family *menage* already established, but expressly stipulates that she pay her own way share for share with the other members.

Two facts are to be noted before we proceed to a detailed criticism: First, the theory is at present inextricably interwoven with the demand for "equal pay for equal work" — clearly a productivity argument and as such outside the immediate scope of this paper. Second, its basic demand that "the *minimum* wage rate should cover the cost of living for dependents," is clearly a cost of living argument pure and simple, and as such falls properly within our province. In the opinion of the writer a great deal of the confusion ordinarily incident to the discussion of this subject may be avoided by bearing these distinctions in mind and refusing to shift from one leg of the argument to the other.<sup>1</sup>

In the first place, what in the case of the working woman is meant by "dependents"? Obviously it does not mean a housekeeping wife (or rather husband) and three small children! Does it mean the three children alone, then? The typical woman in industry is not the mother of a family, still less a widow. (The problem of the widowed mother, where it does occur, is of course a very urgent one. But how many students of the subject seriously suggest that its best solution lies in setting the mother to work at high wages, rather than in supplying her with an adequate pension to care for the children?) In reality the kinds of assistance that working women most frequently render their families may probably be classed as: (1) supplemen-

<sup>1</sup> The way the shift of footing is ordinarily made is somewhat as follows:

- (1) Where women do work exactly replacing that of men, why should they be paid less? (Productivity argument.)
- (2) Where other women are doing work of equal difficulty, why should they be paid less than the first group? (Productivity argument.)
- (3) The accepted minimum standard of living for men includes the support of a family. (Cost of living argument.)
- (4) But many women have families to support. (Cost of living argument.)
- (5) The competition of a lower-paid class of labor keeps tending to drive men's wages down below the family minimum. (Productivity argument, but appears hybrid.)
- (6) Therefore let us make the minimum standard for women include the support of a family. (Cost of living argument again.)

tary assistance to younger brothers and sisters at home; (2) supplementary assistance to aged or infirm parents; (3) (less frequently) supplementary assistance to children, where the husband's wage is insufficient.

Miss Van Kleeck herself appears to recognize this when she writes,<sup>1</sup> "As to what constitutes a normal family of dependents in the case of a woman, the only answer is in the actual facts of many investigations which have been made showing that in general the typical unmarried wage-earning woman is *a member of a family in which there are dependents*,<sup>2</sup> sometimes the father, sometimes the mother, sometimes young brothers or sisters, or a combination of all three." Obviously, then, even if all women had "dependents" in this strictly limited, supplementary sense, it would be absurd to compare the amount of their per capita obligation to that of the typical workingman.

But, a supporter of this theory might urge, the typical working girl at home shows quite as much financial responsibility towards her family as the typical unmarried boy; yet he receives a man's wage, and she, a woman's. True as that may be, is the inevitable reply, the fact remains that the unmarried boy is not the modal type of male labor, while the unmarried girl certainly is the modal type of female labor. The unmarried man reaps high wages just because he is a temporary exception to an established rule. What he pockets is a genuine cost differential. Ten years later he will probably be supporting a wife and children like everyone else and his differential will be swallowed up. Ten years later the girl will in all probability have ceased earning altogether (the chances are over five to one that this will be her fate); while, if she does remain in the depleted

<sup>1</sup> Letter to the writer, cited above, November 22, 1918. This sentence, be it noted, follows directly upon that already quoted which demanded a wage scale for women measured by what is proper for men.

<sup>2</sup> Italics mine.

ranks of the permanent wage earners, she will be in much the same case as regards dependency that she was before: her responsibilities will probably increase somewhat as the years go by, but in no such rapid ratio as the boy's.

So much, then, for the question of the comparability of men's and women's costs. We must not allow ourselves to be confused by a loose use of the word "dependents" in the case of the woman who is assisting her family in a small way.

In the second place, how widespread is even this more common, supplementary form of assistance? Here the perusal of published reports on women wage earners may easily lead us astray. The common practice in such studies is to list as "having dependents" or "contributing materially to the family support" all women who pay into the household exchequer more than an arbitrary sum ranging usually as low as \$3 to \$5 a week. This is of course on the tacit assumption that the woman's cost to her family is to be reckoned on the lowest possible joint basis, that of net additions to a household already established. On such a basis we may find rather a large amount of dependency recorded, perhaps 20 to 50 per cent.

Such a basis of self-support, however, would be most indignantly repudiated by the advocates of the family support theory themselves. Their quarrel with even the type of "independence minimum" established by our minimum wage boards is not that it is too high but that it is far too low. They would never agree that \$3.00 or \$4.00 or \$5.00 is sufficient for board. They therefore find themselves in the illogical position of attempting to prove their case in regard to the high cost of living for working women, by dependency figures compiled on a diametrically opposite assumption. Since

these figures form the only important source of confirmatory evidence so far brought forward by them, their situation is indeed hazardous.

To sum up, then: advocates of the family support theory have failed to define what they mean by "dependents"; to indicate how typical any particular degree of dependency they may have in mind, is; or to point out its relation to any consistent standard of self-support. Pending such definitions it is futile to spend further time in criticism.

### III. BASES OF A THEORY FOR THE FUTURE

Turning now to a more constructive view of the whole subject, let us see what lines of approach naturally suggest themselves from the foregoing study.

In the first place, we cannot escape the fact that women in industry do fall into two main groups with differing cost characteristics: the group at home and the group adrift; that the group at home is far larger and the group adrift individually more important — that is, more steadily dependent for weal or for woe upon their own exertions. *Ceteris paribus*, therefore, that solution of the standard of living problem would be preferable which, altho based in the main upon the modal group, frankly took account of both.

In examining whether such a composite or compromise standard is possible, the initial question with which we are confronted must necessarily be, how great actually is the difference between the expenses of the two groups? We shall be saved some avoidable confusion if we realize at the outset that a long series of items in the two budgets is of necessity practically identical. Clothes, amusements, health, charity, insurance, toilet supplies and other incidentals remain practically



constant whether a girl lives at home or boards. This fact might be considered evident, but has been confirmed in the eyes of the writer by the detailed budgets of some seventy or eighty Philadelphia women whom she recently had occasion to interview. Certain small differences of course make their appearance — such as that the girl at home has to lose a little more time from work, since she is apt to be kept away by any illness or trouble in the family, while on the other hand she is in a position to save a little on clothes and individual amusements. But in the main such trifling discrepancies tend to equalize one another.

Professor Taussig has apparently failed to take account of this tendency when he assigns clothing and so forth to the daughter at home on the basis of what her mother spends for similar items.<sup>1</sup> As a matter of fact the daughter's clothes are equivalent, not to those of her mother at home, but to those of her sister who boards; even in families well below the poverty level, the working daughter's clothes commonly cost nearly twice as much as the mother's.

The items that really are greatly affected by the question of habitat are of course those directly involved in the family pooling of resources, namely board, lodging and laundry. For the woman adrift these items were found by the writer to run as follows (in the city of Philadelphia, January, 1919):

Room (small, single, furnished, heated) . . . . .	\$2.50 a week
Board (two meals a day) . . . . .	5.00 "
Lunches (20 cents a day) . . . . .	1.20 "
Laundry (a few starched articles only) . . . . .	.35 "
Total . . . . .	\$9.05 "

<sup>1</sup> "Now it seems clear that her mother needs no less. The mother must have as much as the daughter for food, clothing, shelter, incidentals." *Quarterly Journal of Economics*, May, 1916, p. 417.

Professor Taussig's whole method of apportionment however — lumping all three children under fourteen as costing no more than one adult — was so obviously intended

For the woman at home the corresponding expenses (taken, however, about three months earlier, when prices were a little lower) were estimated by the writer to amount to about \$7.25.<sup>1</sup> If taken at the same time they would probably be about \$7.80. The method employed in assessing these expenses was somewhat complicated, but may be reduced to a very simple generalized form as follows:

(1) Assign to the daughter a share of general household costs equal to her father's. This can be done by taking any good standard family budget, segregating the figures for food and housing (including under the latter of course not only rent, but also fuel and light, furniture and furnishings, and cleaning supplies), and dividing the total of these food and housing figures by 3.6 or 3.8 or whatever number of "equivalent adult males" that particular standard family has been taken to represent.<sup>2</sup>

(2) To the result thus obtained add the daughter's share of all her mother's expenses — about one-sixteenth of the standard family's total — or, more exactly, nine-fortieths of that total again divided by 3.6 or 3.8 or whatever figure represents that family's food consumption.

for a rough approximation only, that it did not seem necessary to interrupt the course of his argument to point out this discrepancy.

<sup>1</sup> These home estimates were derived from the standard figures of the Philadelphia Bureau of Municipal Research, corrected only up to October, 1918, while the writer's boarding data were taken as aforesaid in January, 1919. The only index we have of the rise of prices during this period is the Bureau of Labor Statistics report for New York where the general rise from August 31 to December 1, 1918, is given as 13 per cent. If the rise in Philadelphia food and housing costs from October to January was even 10 per cent, it would raise our \$7.25 to practically \$8.00. Judging from local reports in regard to food, coal and especially house furnishings, the writer would be disinclined to estimate the rise at much less than this 10 per cent. Probably 8 per cent would be a conservative figure. That would give us a total of \$7.80.

<sup>2</sup> The term "equivalent adult males" is used by dietitians in estimating the total food consumption of a mixed group such as a family, composed of different sexes and ages. The younger the children, for example, the smaller will be the fraction of an adult male's diet assigned to each. Thus on the Atwater scale a boy of twelve ranks 70 per cent, while a child of five only ranks 40 per cent.

The final answer will fairly approximate the daughter's just share, for the following reasons:

(a) Board and lodging expenses probably do not cost either very much more or very much less for the daughter than for her father. On the whole they may cost a trifle more: since, while her normal food consumption is only 90 per cent of his, her "consumption" of bed-and sitting-room space is distinctly higher and her demands upon the family furnishings more exacting. However, since the total food item is about one-third less than the total housing item, we may ignore whatever balance exists in her favor, and decide roughly to allot her a share in both exactly equal to her father's.

Such a procedure of course goes on the basis that the "consumption" of housing facilities on the part of the younger children of the family is proportionate to their consumption of food. This assumption may not be altogether correct, but a perusal of standard food tables and a superficial comparison of the amount of space, furniture, and the like, actually needed by little children would appear to indicate that it is probably not far from the truth. The present writer has tried various more elaborate systems of weighting, but has found the difference in result negligible.

Applying this method of wholesale division to the standard budget of the Philadelphia Bureau of Municipal Research, the result is as follows:

Total for food.....		\$660
Total for rent.....	\$240	
Total for other housing items (fuel, light, furnishings, cleaning supplies).....	\$165	\$405
		<hr/>
Total for all household expenses.....		\$1,065

Composition of this standard family: 3.8 "equivalent adult males."

Consumption of household expenses per "equivalent adult male":  $\frac{1}{3.8} \times \$1065 = \$280$ .

Therefore daughter's share is \$280 a year.

(b) But let us note carefully that this result is only partial. We have not yet allowed anything for the services of the housekeeping mother. The daughter's share in these services must be added to her other household costs. Here the fairest method of procedure would seem to be to allot to the daughter no more than her numerical share, since the younger children of the family would require quite as much service as she. The members of the standard family, aside from the mother herself, are of course four; therefore we will assign to the daughter one-fourth of the total costs of the mother.

In estimating what these total costs of the mother are, it is presumably fair to assess her at about 90 per cent of our previous "equivalent adult male" standard. That is, instead of dividing the housing expenses by 3.8, we should have to divide them by ten-ninths of 3.8, or 4.22. Then we should proceed similarly with all the rest of the expenses of the "standard family" — that is, divide them all by 4.22 to get the mother's share. This procedure is based on the following facts. The mother's share of food is only 80-90 per cent of the father's;<sup>1</sup> her share of clothing is about 85 per cent of his; her share of housing is probably about equal to his; but her share of sundries (especially amusements) is probably less. Therefore her total share may be assessed at nine-tenths of his.

As to the children, their share of clothing (the largest single item in the non-housing group) follows very closely the ratio of their share of food. Thus for a boy of

<sup>1</sup> Depending upon whether we use the Atwater scale or the revised scale now in use by the U. S. Bureau of Labor Statistics. See Monthly Review, U. S. Bureau of Labor Statistics, November, 1917, p. 2. The latter is somewhat higher throughout, save in the case of infants.

six the ratios are for clothing 44 per cent that of his father, for food 45 per cent that of his father. For a boy of thirteen they are for clothing 88 per cent that of his father, and for food 90 per cent that of his father. Consequently we have no good reason to suppose that the general ratio of the *non*-housing expenses for the children differs so radically from their housing ratio as materially to change the mother's share.<sup>1</sup>

The total standard family budget being \$1637,  $\frac{1}{4.22}$  of that amount would be \$388. Of this we have just said the daughter should pay one-fourth.

Therefore the home-living daughter's final share of household costs will read:

For food and housing.....	\$280
For services of mother.....	97
Total.....	\$377 a year, or \$7.25 a week
Probable rise in household prices October, 1918-	
January, 1919, 8%, or.....	.58 "
Grand total.....	7.83 "
In round numbers.....	7.80 "

The corresponding expenses for the girl who boards were, we may recall, \$9.05. Therefore the girl at home

<sup>1</sup> Since writing the above, the writer finds that her conclusions as to the legitimacy of using the food consumption index to measure other family costs have been anticipated in three recent (1918) studies. One of them is by Dr. William F. Ogburn of the national War Labor Board, and is based on U. S. Bureau of Labor Statistics data for the District of Columbia in 1916; the other two are by Messrs. Sydenstricker, Wheeler, and Goldberger, and are based on an intensive South Carolina investigation of their own in 1917 as well as on certain Bureau data for 1911. (See W. F. Ogburn, "Analysis of the Standard of Living in the District of Columbia in 1916," Quarterly Publications of the American Statistical Association, June, 1919; and Sydenstricker et. al., "Disabling Sickness among the Population of Seven Cotton Mill Villages," U. S. Public Health Reports, vol. xxxiii, No. 47, November 22, 1918, quoted by Ogburn, *op. cit.*) Dr. Ogburn shows the close correspondence of food to clothing consumption and points out that the two combined comprise more than half of the total family budget, while Messrs. Sydenstricker et. al. declare "the Atwater scale is roughly indicative of the variations, according to sex and age, in the consumption of all articles for which there are individual expenditures." Dr. Ogburn accordingly adopts the calory scale throughout a prolonged analysis of comparative family costs. It will be noted, however, that neither of these authorities makes an exception of the sons and daughters above adolescent age. It would be extremely interesting to see whether Dr. Ogburn's elaborate correlation tables would not gain in accuracy from this refinement.

has a balance of about \$1.25 in her favor, or a saving of about 14 per cent on her board bill.

The question now arises, however, Is such a favorable comparison permissible in practice? Can the typical lower-class working girl at home, by paying about \$1.25 less than she would if she were boarding, actually secure for herself such necessities and decencies as are embodied in the minimum family standard?

In answer we must recall primarily that the minimum family standard is a standard and not an average of what lower-class male labor is actually receiving.<sup>1</sup> Yet obviously it is from the ranks of such male labor that lower-class working daughters ordinarily come. Rapidly as wages have risen during the war, they have for the mass of unskilled men not risen nearly so fast as has the cost of living. And even before the war, a large section of such labor was underpaid according to any accepted standard of minimum family decency. So long ago as 1909 Chapin, probably our greatest American authority on the standard of living, stated that for a family of five in New York City "an income under \$800 is not enough to permit the maintenance of a normal standard. An income of \$900 or over probably permits the maintenance of a normal standard, at least so far as the physical man is concerned."<sup>2</sup> Yet the federal Census of Manufactures in 1905 had shown that the average wage of male factory labor was then well under \$600. Other well-known pre-war minimum-of-subsistence estimates were J. C. Kennedy's \$800 for the Chicago stock-

<sup>1</sup> This is, a standard of family subsistence, not an average of male wages. It might be thought that the wife and minor children should normally be expected to add to the father's earnings, by taking in washing, selling papers, etc. But that is not the theory upon which our modern standards of living are based. The father in his prime is expected to earn enough to maintain the home.

<sup>2</sup> R. C. Chapin, *Standards of Living Among Workingmen's Families in New York City*, pp. 245, 246. The investigations upon which this standard was based were made in 1907.

yards district in 1909-15;<sup>1</sup> \$876 set by the New York State Factory Investigating Commission in 1914;<sup>2</sup> and \$845 set by the Personal Service Bureau of the Board of Estimate and Apportionment of New York City in 1915. This last was an especially rigid minimum as it was intended for the lowest possible subsistence level of an unskilled laborer's family.

Toward the close of the war (the winter and spring of 1917-18) several federal agencies, working in conjunction with the United States Bureau of Labor Statistics, issued estimates of the minimum cost of living for different parts of the country. These were summed up and embodied in June, 1918 in a careful "subsistence minimum" for eastern industrial centers by Dr. W. F. Ogburn, director of the cost-of-living department of the National War Labor Board. This "subsistence minimum" he set at \$1380, on the grounds not only of his own and other contemporary studies just referred to, but on the accepted rise in living costs since the establishment of the pre-war standards. In June, 1918, the date of his own standard, the average rise in industrial centers since December, 1914, had, according to the universally accepted figures of the United States Bureau of Labor Statistics, reached 55 per cent.<sup>3</sup> That would

<sup>1</sup> "Even with the most intelligent expenditure of money and the most economical management of the household, it would be impossible for a family of five to live on less than \$800 a year. . . . We believe that no family of five can live decently and efficiently in the stockyards district on less than this amount." J. C. Kennedy and others, *Wages and Family Budgets in the Chicago Stockyards District* (published in 1914), p. 79.

<sup>2</sup> "Attention should be called to some of the limitations of this estimate. In the first place, if the family is larger than 3.3 consuming units, that is, if it has more children or older children than the assumed type, the sum set will not suffice. . . . Third, it must be emphasised that the fixing of the minimum cost of living in New York City at \$876 a year, or approximately \$16.85 a week, is not an estimate of a living wage. A living wage must be higher in order to contain an allowance for unemployment. . . . And finally — no allowance was made in this estimate for savings. Savings are an absolute necessity to a family." Fourth Report of the (New York State) Factory Investigating Commission, 1915, vol. iv, pp. 1670, 1671.

<sup>3</sup> For a more detailed but very simple summary discussion of the rise of living costs at this time (July, 1914-June 15, 1918), see *Wartime Changes in the Cost of Living*,

bring Chapin's \$900 minimum (even allowing for no increase between 1909 and 1914) up to \$1390, and the others in proportion.

Since June, 1918, however, the increase has gone steadily on. By August, 1918, it had in New York reached 62 per cent,<sup>1</sup> and by December 1, 75 per cent.<sup>2</sup> In other words, Chapin's estimate would by those dates have required \$1458 and \$1575 respectively. In Philadelphia it had by August reached 67 per cent.<sup>1</sup>

Of the various studies in process of completion during this period, the most thoro is probably that to which we have already referred, undertaken by the Philadelphia Bureau of Municipal Research.<sup>3</sup> Their standard was based on the very detailed budgets of some two hundred and twenty-five carefully selected families, and the results corrected by elaborate quantity and cost analyses. No pre-war standard could compare with it in exactitude. It was moreover conservative in every respect. (E. g., the per capita food allowance for the husband and wife was only \$3.34 and \$2.67 per week, and the annual clothing allowance a trifle under \$78.00 and \$66.00 respectively.) Yet the total budget mounted, as we have already indicated, to \$1637.<sup>4</sup> Allowing for a

Research Report No. 9 (published August, 1918) of the National Industrial Conference Board (Boston), pp. 71-76.

<sup>1</sup> Monthly Labor Review, U. S. Bureau of Labor Statistics, October, 1918.

<sup>2</sup> W. F. Ogburn, *Annals of the American Academy of Political Science*, January, 1919, p. 111.

<sup>3</sup> Completed in October, 1918.

<sup>4</sup> The difference between this and Dr. Ogburn's minimum-of-subsistence standard is by no means such as would be imagined. In their raw state the two figures of \$1637 and \$1380 are not strictly comparable. Ogburn's original standard was set in June, 1918, on the basis of a 55 per cent increase of prices since the beginning of the war. By November he says the general price level in the East may be estimated as having risen another 10 per cent, bringing his \$1380 up to approximately \$1500 (*Annals*, January, 1919, p. 116). Further, the three children of Ogburn's standard family are younger than those of the Philadelphia Bureau's—hence their total expenses are less. Speaking technically (see pp. 20-24 above for explanation) Ogburn's standard family equals 3.4 adult males on the basis of food apportionment while that of the Bureau equals 3.8. Making the necessary adjustment, therefore, of bringing Ogburn's family up to the age of the Philadelphia Bureau's, we find that his \$1500 November budget reaches the astonishing figure of \$1676.



working year of fifty weeks—doubtless an over-generous estimate for unskilled labor with all its liability to frequent unemployment—that would entail a wage of \$30.75 a week, \$5.45 a day.

Meanwhile the highest wage rate for any class of common labor of which we have any record in that part of the country was the \$3.68 set in October, 1918, by the Shipbuilding Labor Adjustment Board. Their award, covering all shipbuilding laborers of the Atlantic Coast, Gulf and Great Lakes districts, was 46 cents an hour for an eight-hour day.

Next to that, for the Philadelphia region, came the 40–46 cents an hour paid to laborers placed in employment by the federal-state employment offices of that city during October, 1918,<sup>1</sup> the season of most urgent labor demand, just before the signing of the armistice. In July, 1918, similar placements in Philadelphia were at the wage of 35–40 cents;<sup>2</sup> while for 130 cities throughout the country at this time,<sup>3</sup> the average government placement wage for laborers was 36.6 cents an hour,<sup>4</sup> or, for an eight-hour day (if indeed such irregular labor should be fortunate enough to average eight hours each day), \$2.93.

Finally, for the year 1919 the city of Philadelphia arranged to pay its municipal laborers an average wage of \$2.87 a day (mode, \$2.75);<sup>5</sup> or, at the highest estimate, some 47 per cent less than the necessary daily family income set down by the Bureau of Municipal Research the previous October.

In the face of such facts, how dare we assume that the lower-class working woman at home is necessarily

<sup>1</sup> See *Monthly Labor Review*, December, 1918, p. 204.

<sup>2</sup> *Ibid.*, September, 1918, p. 182.

<sup>3</sup> I. e., immediately before August 1, 1918.

<sup>4</sup> W. F. Ogburn, "The Standard of Living as a Basis for Wage Adjustment," *Proceedings of the Academy of Political Science*, February, 1919, p. 104.

<sup>5</sup> See Appropriations for the City of Philadelphia for 1919, Bureau of Highways, pp. 114, 115, Bureau of Water, pp. 124, 125.

the member of a "standard" family? And if she is not — if her family is sub-standard — how dare we assume that it will cost her less than the girl who boards to secure the food and shelter she needs? If the typical food consumption of a lower-class family is 5 per cent below par, the daughter would have to make up that entire deficit for all the members of the family before her own share would be adequate. This is not a matter of sentiment but of arithmetic, part of the very co-operative system that makes family living inexpensive. And probably if the food were below par, other necessary items would be also; so that these in turn would have to be lifted before that one person's one necessity could be fully satisfied. *It is impossible in short for a working woman to maintain any such standard as our American minimum wage laws contemplate so long as she is the joint-cost member of an already submerged family.* Her only chance (economically speaking) is either to break away and thus have to meet the expenses of independent living, or to raise the family welfare to the required level. The contention of the present writer is that, pending fuller wage information such as we shall possess after the 1920 Census, we have no right to assume that the second alternative is, on the average, the cheaper of the two.

Such a contention is further borne out by an examination of what properly constitutes "submergence" in the case of a family old enough to have a working daughter. The present writer is very strongly of the opinion that even if a family is financially above par according to our accepted father-mother-and-three-small-children standard, it may be well below par on that same standard when once the children are half-grown.

The following facts press for presentation in this connection:

(1) The actual expenses of the family increase enormously. It cannot be too strongly emphasized that in the few years of early adolescence immediately succeeding thirteen (the age at which our standard family stopped), the expenses for each child rise out of all proportion to previous increases. That, it will be said, is ordinarily more than compensated for by the supplementary earnings of these children. True, if they all go to work so soon as they are fourteen; but it is at this very period that additional schooling or trade training is so common. Moreover, a not inconsiderable percentage of children fail to complete the required grades at fourteen.

(2) Further, a family with half-grown children is apt to have a larger total number of children than is allowed for by our standard. By the time an oldest daughter is eighteen or twenty the child-bearing period of the mother is ordinarily completed, and the full complement of children is increasingly apt to be more than three or even four. In the city of Scranton, the writer found that the average number of "equivalent adult males" in those families having wage-earning daughters over eighteen among the families investigated in September by the United States Bureau of Labor Statistics, instead of being 4.5, as it would have been had the children simply been the three of the Bureau of Municipal Research's standard family moved ahead five years in age, was actually 5.84, an average difference of 30 per cent per family. In Philadelphia, a parallel investigation conducted in November, 1918, yields an average of four children per family; and in "equivalent adult males" an average total family of 5.1 instead of 4.5, an average difference of 13.3 per cent. These figures would, according to Dr. Ogburn's June requirement of \$1380 for the standard family, necessitate total incomes of

\$2127 and \$2371 respectively, for these average adolescent families of Philadelphia and Scranton, provided that for adolescents the food requirements continue to be a proper index of their total cost to the family.

(3) But in the case of the working daughter detailed above we have shown that no such constant proportion holds true. Her clothing and miscellaneous expenditures are out of all proportion to those of her mother, whose food requirements were but little if at all less than her own. The same holds true of her slightly younger brothers and sisters. Once the age of thirteen or fourteen is passed, the costs for clothing, amusements and incidentals go up by leaps and bounds.

(a) This discrepancy is brought out very strikingly by the Scranton figures, which, altho they give an average total income for the families discussed above of \$1890, or only 20.4 per cent less than would be demanded by Dr. Ogburn's standard figure when adjusted on the basis of increased food requirements, show a deficit in the family food consumption itself of 29 per cent below his standard.<sup>1</sup> In other words, food has fallen behind  $8\frac{1}{2}$  per cent in the race with miscellaneous expenditures.

(b) Moreover, the food consumption of these adolescent families is below par not only according to Dr. Ogburn's absolute scale, but also according to the relative scale of the amount spent on food by all the other Scranton families investigated. Where these spent \$160 a year (or \$3.08 a week) per "equivalent adult male," our adolescent families spent only \$128 a year (or \$2.46 a week). In other words, leaving quite aside the question of the possible undernourishment of the general run of workmen's families in Scranton,<sup>2</sup> the

<sup>1</sup> I. e., the difference between the actual Scranton family average of \$750 a year and the \$1056 of his adjusted standard.

<sup>2</sup> In justice to them it must be remembered that Dr. Ogburn's standard was set in June, while their recorded year ran from October to October.

fact remains that those families that in 1917-18 were enjoying the vaunted advantage of possessing wage-earning daughters over eighteen, were actually 20 per cent less well nourished than their neighbors.<sup>1</sup>

(4) Another factor that has to be taken into account is the need for savings that first manifests itself at this middle period of family life. It is now, if ever, that the parents must begin seriously to lay aside for their own old age. No such responsibility rests upon the parents of the standard family still on the hither side of the prime of life — or at least, no such allowance is ever made in the standard budgets with which we have been dealing. The presumption of these standard budgets is undoubtedly (and quite properly) that in the middle period to follow, when the children are growing up, their earnings will so augment the family store that the parents can save rapidly and heavily to provide against the time so soon to come when the father will no longer be capable of earning his full wage and the time not so far beyond that when the industrial world will no longer want him at all. If a working daughter makes no contribution toward such necessary savings, the chances are very much increased that she will have dependent parents on her hands a few years later, or that meanwhile the parents will insist upon saving out of what should be current expenditures so that her own needs will be scantied in the manner indicated above.

To a lesser degree, this is also the time when the older sons or daughters of the household must be laying something aside for their own marriage. The total amount required for this is of course relatively small, yet the

<sup>1</sup> Standard food consumption per "equivalent adult male," according to Ogburn .....		\$181.00 yr.
Actual food consumption per "equivalent adult male" in Scranton: All families .....		152.50 "
Families having working daughters over 18 .....		128.00 "
Families not having working daughters over 18 .....		160.00 "

period of saving is commonly so short that it makes a not inconsiderable item in many a working girl's budget.

All these additional costs of the adolescent family — increased per capita expenses, augmented even more rapidly than the rise in family food consumption would indicate, an actually increased number of mouths to feed, and the pressing need for savings — all combine to make a picture so different from that of the standard family, that the present writer would most earnestly urge future students of the cost of living to make a separate study of this period. Until such a study is completed we must perforce labor very much in the dark with the problem of the working girl. To make the chain complete, we should of course have small additional studies of the minimum initial costs of house-keeping, including the expense of the first baby; and also of the costs of old age, when the superannuated parents either continue to live by themselves or (as is more frequent) in turn become joint-cost members of their children's home.<sup>1</sup> The need and value of such a "moving average" budget can hardly be over-emphasized. Combined with the corresponding wage data (which of course are far more accessible), it would for the first time put us in a position to see for any given state of prices what are the *relative* liabilities of the different periods of a workman's history; and, to offset these, what are the assets upon which he can normally count at these different periods — the rising and falling curve of his own wages, combined later on with that of his children. Such knowledge would give a new solidity to our discussions of the proper relation of men's and women's wages, the advisability of different forms of social insurance, the problem of the extension of the school

<sup>1</sup> It might be thought that since this is a rather common expense of young families, it would appear in the best standard budgets. But such is not the case — another proof that the budgets imply independent saving for old age during the middle period.

period and so forth. If this paper, by virtue of its very gaps and omissions, could but point the need for such further study, it would serve its purpose.

Meanwhile the gap of what may constitute the average family requisite in the way of subsidy from its working daughter, remains with us. What the amount of it may be, we have no means of telling until the figures for which we have just been pleading are forthcoming. But that some subsidy is on the average necessary, should by this time appear overwhelmingly probable. And surely the burden of proof should be placed upon those who would maintain that this unknown amount is less than the narrow margin that separates the standard expenses of the woman at home from those of her sister adrift.

#### IV. CONCLUSION

The final conclusion, accordingly, at which the writer has arrived, is that for the time being, and with full consciousness of its revisability, we should take for our working woman's standard the cost of independent living; and that for the items other than board, which are roughly identical whether the woman lives at home or not, a full temporary independence minimum is sufficient.

The following reasons have led to this conclusion:

(1) Widows and other persons upon whom falls the sole responsibility for several dependents are a relatively rare occurrence. And in the great majority of such cases of complete dependence, a system of pensions or occasionally of institutional care<sup>1</sup> is preferable to one in which the chief breadwinner is at the same time housekeeper and sole nurse.

<sup>1</sup> This latter, for example, in the case of certain mental defectives.

(2) Many independent women who now have to send away money to assist aged parents or other poor relatives, would be automatically relieved of this burden by the general increase of family welfare resulting from the increased wage of the women remaining at home.

(3) As to the question of the sufficiency of a temporary as contrasted with a permanent independence standard,<sup>1</sup> it is to be noted that:

(a) Few women have to board throughout life. Not only do the great majority of working women as of working men marry sooner or later, but practically none of them follow a calling that of itself necessitates "drifting." The male harvest hand or lumber jack has no female counterpart. Moreover, it may well be argued that with a leveling-up of wages at home fewer of the younger women than now would be forced afield in search of a living. Finally, of those who remain celibate or become widowed, a large proportion naturally fit before long into some family circle. They may continue to do their day's work outside the home rather than in it, but their absolute expenses are once more reduced to a joint-cost basis. When they finally reach old age, the expense they have to meet is only that of care within the family.

(b) This care can roughly be provided for out of such a full temporary independence budget as the writer would suggest, by the savings of early middle age — savings naturally incident upon the decreased expenditure of the older woman for clothing and amusements.

<sup>1</sup> In using the word "temporary" here, the writer is conscious of diverting it perhaps unfairly from its original definition as given at the beginning of this article. The standard she advocates is intended quite definitely to include provision for current illnesses and other emergencies, as well as a very small insurance fund. Her quarrel with the use of the word "permanent" in such a connection, is merely because of its emphasis on the abnormal case of the woman whose absence from home is to be lifelong. She has, therefore, used the expression "full temporary independence minimum" to denote a compromise attitude that emphasises primarily the entire range of needs of a woman away from home for only a few months or years.



Of course to permit of such elasticity, our temporary independence budget must at the outset be generous to a novel degree — generous, that is, according to the narrow standards hitherto adopted by our best-known wage boards. But a younger woman's budget, in order to be up to a genuine health minimum in practice, must in any case be ample enough to provide for a far larger amount of pretty clothing and amusements than an older woman would require: if we allow for only as much of these "secondary expenditures" as may seem strictly "necessary" and "sensible" to an older person, we shall commonly find the young recipient of our minimum underfeeding herself to make up the difference.

The following, accordingly, is the sort of full temporary independence budget that the writer, pending fuller information on family costs, considers to have been adequate but conservative for a working woman in Philadelphia, a fairly typical eastern city, in January, 1919.<sup>1</sup>

Looking back now over the general course of the argument we have been following, can we not see, for all their apparent divergence, points of compromise and even of agreement on the part of the various theories we have reviewed? Is it so impossible to hope that their exponents may in the future come to a basis of common understanding and effort, when once they shall have been properly interpreted to one another?

Each of the four theories represented<sup>2</sup> has good points which it would be a pity for us to lose. The joint-cost

<sup>1</sup> Figures based upon budgets for the year 1918 of some seventy or eighty working women personally interviewed; upon studies for the fall of 1918 (not yet published) by the U. S. Bureau of Labor Statistics and the Philadelphia Bureau of Municipal Research; and upon the published findings of previous investigations, including the budgets drawn up during the last eight years by the various minimum wage boards of the country.

<sup>2</sup> I. e., leaving out of account the pin-money theory, which is in any case now obsolete among serious thinkers.

FULL "TEMPORARY INDEPENDENCE" BUDGET  
MINIMUM WEEKLY RATES

Boarding <sup>1</sup>		At home <sup>1</sup>
Room, board, lunches, and partial laundry.....	\$9.05	Daughter's share of house-keeping expenses, plus mother's services..... \$7.80 Daughter's subsidy to family 1.25
		Total..... \$9.05

Clothing <sup>2</sup> (\$130.00 a year).....	\$2.50
Toilet articles, soap, etc. (\$5.20 a year).....	.10
Carfare (10 cents a day).....	.60
Health (\$21.00 a year).....	.40
Stamps and stationary (25 cents a month).....	.06
Amusements <sup>2</sup> (movies, ice cream, etc.).....	.35

## Vacation:

Room and board, 1 week.....	\$10.00
R. R. fare.....	2.00
Spending money.....	1.00
Other trips over night.....	1.60

\$14.60

Money saved on regular meals and carfare during vacation.....	\$6.80	
Net cost of vacation.....	7.80	.15
Education (papers and magazines).....		.15
Extra carfare (.10 every two weeks).....		.05
Dues.....		.05
Church and charity.....		.15
Christmas presents, etc. (\$3.65 a year, excess of gifts given over gifts received).....		.07
Insurance (\$13.00 a year).....		.25
Other expenses (unforeseen \$3.65 a year).....		.07
Loss of wages, 1 week's illness (\$15.00).....		.30
Loss of wages, 1 week's vacation or unemployment (\$15.00).....		.30
Savings <sup>2</sup> (\$21.00 a year).....		.40
Total.....		\$15.00

<sup>1</sup> See pp. 241 ff.

<sup>2</sup> (a) Older woman's clothing (\$104.00 a year)..... \$2.00; or 50c. less

(b) Older woman's amusements..... .25; or 10c. less

(c) Older woman's savings (\$52.00 a year)..... 1.00; or 60c. additional

(therefore older woman's total insurance plus savings = \$65 a year, even supposing that she continues to pay the \$1.25 a week board subsidy to the family with whom she lives. If, however, the latter ceases to become necessary, her total savings reach \$110 a year).

theory emphasizes the valuable fact of the norm of family life and family economy; the temporary independence theory, the needs of the girl adrift; the permanent independence theory, the importance of provision for the hazards of unemployment and old age; and the family support theory, the prevalence of need in the families of women workers.

Especially important to the present writer seem the points brought out by our two sets of family theorists—the real economies of home life, and its inescapable burdens. In this connection the exponents of the family support theory are especially to be thanked for pioneer service, since they have had the courage to attack, however crudely and confusedly, the outworks of the dependency problem. Their unscientific method has received scant shrift in this paper; but the underlying truth of their complaint — that the question of women's wages and standards of living must be examined in the light of family wages and standards — should, the present writer firmly believes, form the cornerstone of future study.

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## RAILROAD VALUATION BY THE INTERSTATE COMMERCE COMMISSION

### SUMMARY

V. Cost. Facts and estimates, 261. — Commission procedure, 262. — Renewals and costs, 263. — Appreciation, 266. — Original cost determined by appraisal, 269. — Facts and estimates once more, 270. — VI. Intangibles. Commission doctrine, 271. — Franchise value, 272. — Going value and strategic value, 273. — Wisconsin deficit theory, 276. — VII. Final value, 277. — Confiscation and condemnation, 277. — Exchange value, 278. — Capitalisation of earnings, 280. — The general rate structure, 283. — The reasonable return as a variable, 284. — The appeal to authority, 288. — Cost of reproduction as a basic fact, 289. — Land once more, 290. — Cost of reproduction and investment, 293. — The rule in *Smyth v. Ames*, 297. — The Commission and "final value," 298.

### V. COST

The valuation act calls for the ascertainment and report in detail of the "original cost to date" of each piece of property. This requirement the Commission has interpreted as demanding the report of a *fact* as contrasted with an *estimate*.<sup>1</sup> The properties have been "actually produced in the past, and their production has cost a given amount of money." Provided the records suffice, original cost, "a fact of prime importance," can be exactly known, and it is in the *exact* sense that the words are interpreted by the Commission.<sup>2</sup>

<sup>1</sup> "The cost of reproduction now is of necessity an estimate, for the property never will be reproduced in fact and the exact expense of reproducing it cannot, therefore, be known. Depreciation is necessarily an estimate, for there is no way in which the exact amount of deterioration can be known." *Texas Midland*, 1 Val. Rep. 1, 176.

<sup>2</sup> *Ibid.* Mr. Prouty has said:

"Possibly I ought to say a word on the subject of original cost. The States say that there is no disposition upon the part of the Bureau of Valuation to show the original cost. I desire to state, at the outset, that that impression is absolutely erroneous. The

Search has been made for the best evidence of cost. The usual sources of information are the books and files of the carrier, but where these records are "missing or deficient with respect to the expenditures for property" resort is had to the records of the contractors, of reorganization committees and syndicates, and of courts and commissions. Where cost cannot be determined "within reasonable limits of accuracy, from evidence which carries with it a fair degree of certitude" (i. e., "exactly") the Commission reports, not a figure of estimate, but a statement of the impossibility of making a report of cost.<sup>1</sup>

The detail of the report is entirely governed by the character of the records, altho, in its interpretation of the language of the act, the Commission has held that the phrase "each piece of property" is to be given "a reasonable and sensible construction." While the primary account has accordingly been selected as the basis for the report (as "ordinarily . . . sufficient for every practical purpose") it has, in some instances, been possible to distribute the costs to the structural units. The information is generally given by valuation sections, but if the costs can be given only for the line as a whole, the latter procedure is followed; and, where only fragmentary data are available, such as land and equipment costs, reports covering such portions of the plant are made.<sup>2</sup>

The inadequacy of railroad records makes difficult distribution even by primary accounts. Until 1907 accounts were not uniformly kept by different railroads,

Bureau of Valuation, speaking for Mr. Staples, Mr. Farrell, and myself, attach more importance to original cost when original cost can be known than we do to any other thing which can be known in this valuation. But, gentlemen, we want to know that it is original cost. Now original cost is a fact; it is not a guess." *Hearings*, December, 1917, p. 142.

<sup>1</sup> *Texas Midland*, 1 Val. Rep. 1, 177.

<sup>2</sup> *Ibid.*, pp. 178, 179; *Kansas City Southern*, 1 Val. Rep. 223, 229-238.

nor even by the same railroad over a period of years. Additions and retirements, changes and betterments, have been made without affecting the property accounts. During adverse years maintenance has been deferred; during prosperous years improvements have been charged to operating expense. Even for equipment it is only "where the additions and changes have not been extensive" that "original cost as a rule can be shown with exactness." And the showing of original cost for the road accounts is "extremely difficult" because in the face of continual changes involving additions and retirements, the same general structure has been maintained.<sup>1</sup> When the Commission's accountants sought, by examining every voucher of the Texas Midland, to reconstruct the accounts "upon a proper basis," the task was found impossible of precise accomplishment. Accordingly, the tentative valuation reported that while "it was possible to identify the equipment now in existence and show the cost of that, and also to show the original cost of lands with reasonable certainty, . . . a statement of the original cost of particular structures, or by primary accounts, or even of the property as a whole, would be entirely misleading."<sup>2</sup> Such report has been possible for the Winston-Salem Southbound, which was built as a complete new project after 1907.<sup>3</sup>

Even for the Winston-Salem Southbound it is not asserted that the amounts reported "in every instance represent the exact cost of property units now in place."

<sup>1</sup> Texas Midland, 1 Val. Rep. 1, 179; see the discussion, Railroad Valuation, pp. 114, 115, 121, 171-173, and the references there cited; also Texas Midland Brief, pp. 306-315, and cases cited.

<sup>2</sup> Tentative Valuation, Texas Midland, p. 11.

The accountants, however, were not able to assign the greater part of the improvements "which must have been made to this equipment, a large part of which was purchased prior to 1899." *Ibid.*, p. 12.

See also Railroad Valuation, pp. 136-140, and especially the quotations there given from Mr. Prouty's address before the 1914 meeting of the Nat'l Ass'n Ry. Com'rs.

<sup>3</sup> Tentative Valuation, pp. 8, 13.

But, with the qualification that "doubtless some renewals have been made," the tentative valuation states that the original cost has been distributed to primary accounts, and has been allocated to localities or units.<sup>1</sup> The qualification is, however, significant, and especially significant for the older properties. The rules of the Commission with respect to certain accounts are based upon the concept of maintenance in terms of operating efficiency, and not of maintenance in terms of dollars of investment. Accordingly no account is taken of any difference between the cost of the new unit, and the original cost of the unit retired; an important consideration in a period of advancing prices; and especially important for those units of plant subject to frequent replacement:

Consider the tie as an illustration. Let it be assumed that the tie now in place is exactly similar in every respect to the tie which was originally installed 25 years ago. That tie cost 50 cents; the present tie cost \$1.00; nevertheless, the original cost of the present tie as carried upon the books of the carrier and in its investment account is 50 cents, which is reported as the original cost. The cost of placing the tie is carried in Account 12, tracklaying and surfacing, which is entirely a labor account. Evidently, if the cost of labor has increased, the expense of placing the present tie exceeds the expense of placing the original tie, but this difference in expense is not reflected in Account 12, and it does not therefore appear in our report of original cost. Other of the primary accounts are affected in the same way to a greater or less extent.<sup>2</sup>

The question thus resolves itself into the question of whether we are now interested in what the existing plant

<sup>1</sup> Tentative Valuation, p. 13.

<sup>2</sup> Texas Midland, 1 Val. Rep. 1, 178. This paragraph would seem to be a reflection of the discussion, Hearings, March, 1917, p. 380. At p. 149 it is stated:

"The accounting rules of the Commission do not permit a carrier to include in the cost of a betterment or addition to its property anything on account of engineering service rendered by the operating engineers of the carrier. It usually happens that railroad systems of considerable size employ engineers of ability as a part of their regular operating force, and these engineers exercise a certain amount of supervision over additions and betterments to the property. To an extent, therefore, engineering is not included in the cost of these subsequent improvements and does not appear in the total of Account No. 1." See discussion by Mr. Brantley, Hearings, May, 1915, pp. 73-76.

cost, or what the original plant cost five, ten, fifty years ago. Which constitutes original cost to date, which constitutes investment ?

Fundamental considerations are raised in these terms. The Commission's accountants, finding it impossible to allocate costs to units of plants, have shown a "kind of original cost" by seeking to determine the source of the funds spent for plant, when units of plant have been added otherwise than as replacements charged to operating expenses. "When the proper retirements have been made the result is the original cost of the property in existence, assuming those retirements to have been all identified and the original cost properly determined."<sup>1</sup> The difference between any amounts charged to operating expense because of a more expensive replacement in kind (a \$1.00 tie instead of a 50 cent one) and the original cost of the original unit (the 50 cent tie) is assumed not to constitute investment, since it has been charged to operating expenses.<sup>2</sup>

In substance this is a proposal to accept the carrier accounts for operating expenses at the same time that

<sup>1</sup> Texas Midland, 1 Val. Rep. 1, 179. The amount reported as the "maximum cost" of the Texas Midland, determined upon this basis, was \$2,892,360.94. Ibid., pp. 9-11, 98-100. "It is believed that this figure is of great value, but it must not be understood that it precisely represents original cost, for it does not," p. 190. See also Hearings, May, 1915, p. 142; December, 1917, p. 160. For the Kansas City Southern it was agreed between the Bureau and the carrier that the total "investment cost" of the railroad system, excluding an affiliated tank car line, was \$46,978,042. 1 Val. Rep. 223, 229.

<sup>2</sup> The following is quoted from the Brief of Messrs. Benton and Farrell supporting the Kansas City Southern tentative valuation:

"Such increase in the cost of ties used for renewal as has been paid out of operating expense, and the same cannot be included in a statement of original cost without making such cost, as reported, reflect something quite different from the investment in properties made by the owners out of capital advanced by them. It is not to be supposed that Congress intended that the Commission should include as original cost to the carrier anything which has been properly paid for as operating expense," p. 26. It had previously been admitted that an increase in the cost of ties had occurred, and that the increase had not found its way into the investment account of the carrier. But it was denied that this cost should be included in original cost. Ibid.

This contention was overruled by the Commission. 1 Val. Rep. 223, 237, 238.



the property accounts are rejected as worthless, altho the inadequacy of accounting theory and practice would seem to apply equally to both. Because it could not be determined from the accounts whether "Box Car No. 1894 (galvanized sides and roof) . . . had been built at the company's shops and the cost thereof charged to operating expenses, or whether it had been donated," no original cost for this unit of plant was reported.<sup>1</sup> This is perhaps an extreme illustration, but it serves to bring out clearly the essential point of principle: it is possible for actual investment to be made even tho the cost of the unit of plant be charged to operating expenses. Whether the new unit of plant represents a net increase in investment depends upon other considerations: maintenance, depreciation, etc.<sup>2</sup> But when analyzed in terms of investment (money spent in the creation of plant) all maintenance is seen as a creation of capital goods, altho the accountant conceives of it only as expense.<sup>3</sup> It is not a *reductio ad absurdum* of the depreciation appraisal that the "condition per cent" of a locomotive is greater after shopping than before. The newly shopped locomotive represents more stored up labor, measured by dollars of labor cost — greater investment.<sup>4</sup>

<sup>1</sup> Texas Midland, 1 Val. Rep. 1, 100. It was further stated that no record of the cost of the car could be found in the accounts.

<sup>2</sup> See the discussion, Railroad Valuation, pp. 108-124 and especially pp. 110-114, 121.

<sup>3</sup> "Take the case of the locomotive. When it has been shopped, the cost of the new wheel, or piston rod, or driving axle constitutes the existing investment, not the cost of the original part which has become worn out and useless for productive purposes. . . . The accountant would conceive of the cost of such repairs as maintenance, therefore, solely as operating expenses. Business practice does not coincide with the refinement of economic theory which is important for the course of the present reasoning." *Ibid.*, p. 111. And see the diagrams in F. A. Delano, "The Application of a Depreciation Charge in Railway Accounting," *Journal of Political Economy*, vol. xvi, p. 362, which illustrate the contention here made; and testimony of Mr. Wells of the Texas Midland in response to the question as to what was left of an original engine: "There was not very much of the original locomotive left except the outside shell of the boiler, the frame and the cylinders." Hearings, March, 1917, p. 864.

<sup>4</sup> Condition Per Cent, pp. 34, 40.

Within uncertain limits, set by a variable standard as to what constitutes the most economical operating condition (or from the other angle, what constitutes "deferred maintenance") the carrier has very real control over the disposition of its income. The public has not paid the operating expenses of the railroad in any different sense than it has paid the operating expenses of any other private business. The public has paid a price for a service, and out of the total income, the disposition of which has been largely in the hands of the directors, appropriations have been made for dividends, for maintenance, for extensions, etc. Once the income accrued to the private company, its distribution, except as affected by safety regulations, etc., has been determined by the private interest, and under private control. Heavy appropriations for maintenance, replacements and renewals (even for additional structures) have been made out of earnings, but the directors have had the choice of making such reinvestment of earnings, or of distributing the earnings, including even the amounts properly representing the wearing out of equipment and plant.<sup>1</sup> When dividends have been suspended, or interest repudiated, in order to put money back into the property, can it be said that the plant bought from earnings did not cost the owners anything, because charged as operating expense upon the books?<sup>2</sup>

Any legitimate claim for "appreciation" is based upon an analysis of maintenance as investment, altho the concept, as discussed by the carrier counsel, is by no means clean cut.<sup>3</sup> Too frequently the evidence (expert

<sup>1</sup> For illustrations of what happens when the directors fail to invest earnings in plant, see the discussion of the Boston & Maine and the Rock Island Co., in Ripley, "Railroads, Finance, and Organization," pp. 236, 237; and the chapters on the Atchafalpa and the Baltimore & Ohio, in Daggett, "Railroad Reorganization."

<sup>2</sup> See quotation from Mr. Prouty, below, p. 268.

<sup>3</sup> Railroad Valuation, pp. 110, 111; Texas Midland, 1 Val. Rep. 1, 65-68; 130-135.

testimony) has sought to show that the old roadbed is more "valuable" than the new roadbed, because maintenance expenses are less, or a purchaser would be willing to pay more, etc.<sup>1</sup> But the essential point is that "a railroad is not a finished product when the construction forces have put its parts together and turned it over to the operating department."<sup>2</sup> There is still much work to be done "in resurfacing, in opening up clogged waterways, and in bringing about an improved condition of roadbed, right of way and station grounds."<sup>3</sup> And to the extent that this work represents a net addition to investment it may be said that an "appreciation" has occurred which is quite independent of earnings or "value," regardless of the method of handling the extraordinary expenses upon the books. When the Commission falls back on its accounting categories, the real underlying problem is passed over. That under the prescribed rules of accounting the carrier cannot carry any part of this expense into its investment ac-

<sup>1</sup> The following excerpts from the testimony are typical:

Mr. Brantley: "Mr. Brumley, as between a new roadbed; that is, one that is first completed, and an old roadbed, or one that has been in operation quite a number of years, which is the more valuable?"

Mr. Brumley: "The old roadbed, which has gone through the process of seasoning, solidification, and adaptation." Hearings, March, 1917, p. 149; compare testimony of Mr. C. S. Churchill, of the Norfolk & Western, p. 164; testimony of Mr. H. C. Phillips, Hearings, May, 1915, pp. 59-61.

<sup>2</sup> Mr. Brantley (*ibid.*, p. 56) continued in terms which indicate the uncertainty of the concept:

"In addition to such further work and quantities there is an increased value that comes to the property by reason of solidification, adaptation, and adjustment which is due primarily to time and use. This additional value is quite pronounced and is universally recognised to exist, and is the appreciation for which, as I understand it, we are now asking an allowance be made."

<sup>3</sup> Carrier Valuation Brief of 1915, p. 157.

In the Kansas City Southern Brief, it is said:

"It appears from the testimony of Mr. Johnson, Mr. McCarty and Mr. Rust, that section men ordinarily perform work properly classed as construction work, such as widening cuts and fills, sodding banks, cleaning out ditches, and depositing the material in embankments, constructing rip rap and other bank protection work. Approximately 8 to 10 per cent of their time is employed in work of this character. This work is essentially construction work, and its cost is a proper capital charge." P. 269. The Texas Midland Brief does not discuss appreciation because the "principles and authorities" are fully discussed in the 1915 Brief.

count proves nothing conclusively, except that, when tested by a refinement of economic theory, the accounting rules are inadequate.<sup>1</sup> Thus there is no "transmutation of past operating expenses into property."<sup>2</sup> The property (plant) already exists as part of the machinery of production. Nor from the point of view of principle is it important that an extremely difficult task of measurement is proposed.<sup>3</sup> It is perhaps significant that the Commission in the Winston-Salem Southbound opinion falls back on the cost of reproduction hypothesis: "Appreciation cannot be produced merely by the expenditure of money and therefore cannot be reproduced new. We have already pointed out that the valuation amendment contemplates the ascertainment of cost of reproduction new, and not the cost of reproduction in the present condition."<sup>4</sup> The cost of appreciation has not been recognized as possibly constituting a part of the real original cost. And this is the fundamental error in the Commission reasoning.<sup>5</sup>

<sup>1</sup> This conclusion is based upon a premise which the resort to the authority of the accounting rules indicates that the Commission admits is valid: namely that actual "betterments" are added to existing plant units through maintenance work. See Notes and Comments, p. 67.

The following is quoted from the March, 1917, Hearings:

Director Prouty: "I do not think we make any question — I certainly do not — that a seasoned roadbed is worth more than a green roadbed. . . . My claim is . . . the seasoning does not cost anything, because it has all been paid for as operating expenses, additions and betterments." P. 165. This conforms with Mr. Maltbie's statement, Hearings, May, 1915, p. 64; see also Mr. Farrell's Brief in the Texas Midland case, p. 35; and in the Kansas City Southern case, p. 14, to the same effect.

<sup>2</sup> Mr. Aitchison, Brief for the Nat'l Ass'n Ry. Com'rs, p. 94.

<sup>3</sup> See discussion, Texas Midland, 1 Val. Rep. 1, 65, 130, the unsatisfactory nature of which indicates the difficulty of the task of measurement; and Hearings, March, 1917, pp. 80, 102, 127, and 164.

<sup>4</sup> 1 Val. Rep. 187, 195; Mr. Prouty expressed the same idea at the March, 1917, Hearings, p. 51, and the argument appears in Benton and Farrell, Kansas City Southern Brief, p. 10.

<sup>5</sup> But the following from the majority opinion in the Kansas City Southern case indicates a less positive attitude than that shown in the Texas Midland and Winston-Salem Southbound opinions:

"It is testified that between 8 and 10 per cent of the time of section men is devoted to work the cost of which represents a proper charge to the capital account. Illustr-

The original cost appraisal made by the Kansas City Southern represents an engineering attempt to supply the data which rewriting of the accounts has failed to secure, because of the inadequacy of the records, or the insufficiency of the accounting rules. The proposal, by no means a new one, is that an engineering investigation, parallel in its scope with the reproduction field work, shall be translated into terms of dollars on the basis of the actual cost of the units in place, regardless of the source of the funds.<sup>1</sup> The result secured by such investigation (assuming 100 per cent accuracy) will be that sum which measures the investment new (represented by the physical plant) in terms of dollars. In a very real sense it measures original cost to date; in fact, it is difficult to see that any other figure can represent such cost, except on the basis of far-fetched definition.<sup>2</sup> But the Commission, in its Kansas City Southern opinion ruled otherwise.<sup>3</sup>

The contention of the carrier has not been answered in terms of principle. "The Commission has taken the position that if the facts as to original cost cannot be ascertained from the records, an estimate may not be substituted."<sup>4</sup> Cost, it will be remembered, is a

tions of such work are widening cuts and fills, sodding banks, cleaning out ditches and depositing material in embankments. . . . We will not add unknown charges to the amount stated as investment in the property and the claim of the carrier is not sustained." 1 Val. Rep. 223, 252. This establishes a test of accuracy, not a test of principle.

And compare Commissioner Daniels' critical analysis of the unsatisfactory treatment of the appreciation problem in the three cases in his dissenting opinion. *Ibid.*, pp. 266-269. He says: "The fact that the carriers have not shown us how to measure it is no excuse for our declining to measure or estimate it, if it exists, and it ought to be included and reported." P. 269.

<sup>1</sup> Testimony of Mr. R. J. McCarty, Vice President, Kansas City Southern Railway, Hearings, March, 1917, pp. 357-395; Protest, Kansas City Southern, p. 11; Brief, pp. 243-270. See Brief of Glenn Plumb for the Railway Brotherhoods, pp. 67-73.

<sup>2</sup> Railroad Valuation, pp. 110, 135, 136. See Mr. Prouty's discussion, Hearings, December, 1917, pp. 142-144.

<sup>3</sup> Kansas City Southern, 1 Val. Rep. 223, 229.

<sup>4</sup> Benton and Farrell, Kansas City Southern Brief, p. 14; see discussion in similar tone by Mr. Prouty, Hearings, December, 1917, pp. 143, 144.

fact.<sup>1</sup> Mr. Prouty answered Commissioner Anderson's supposition that "it would be at least as easy to make an accurate estimate of the original production costs" by a denial:

Well it is not as easy, because we do not know the prices. We cannot get the prices as accurately. We cannot tell in a great many instances when the property was produced, and it is not as easy. Take property which has been developed from a single track into a double track, or from narrow gauge into broad gauge, or take the Kansas City Southern, which has been developed from a single track into a perfected single track. You cannot tell when those things were done, and I do not think you can tell what it actually cost to do it; but I have repeatedly said to the Commission that if you want that kind of an inventory, we can make a pretty good stab at it. We can tell when a bridge was built; we can generally tell when a culvert was put in, or when a rail was bought, or when a tie was bought, on the average, with considerable accuracy. So, if you want that kind of an inventory, we can give it to you, Mr. Commissioner, but it will not be as reliable as the reproduction inventory. It will be more of an estimate than that, and it will not be good for anything, in my judgment, when you get it.<sup>2</sup>

But, after all, the issue is not a question of ease; nor even a question of relative accuracy. It is one of principle. Even on the basis of accuracy, the skeptic may be pardoned: for cost of reproduction is, by definition, purely hypothesis. And certainly the Commission's "investment cost" cannot be said to bear any necessary relation to the cost of the present plant.

While an appraisal based on the cost of the units in place measures original cost to date, it does not measure unimpaired investment: the amount of original cost not used up in producing past service. An appraisal of accrued depreciation is still necessary in order to measure the amount of that cost which has been so used up; or, in accounting terms, to measure the depreciation reserve which would appear upon the books, did the

<sup>1</sup> *Texas Midland*, 1 Val. Rep. 1, 176.

<sup>2</sup> *Hearings*, December, 1917, p. 167.

accounts show the actual economic (and business) facts. That the Valuation Act calls for no analysis in these terms, but only a vague cost to date, is further evidence of the inadequacy of that legislation.<sup>1</sup>

## VI. INTANGIBLES

The first series of Tentative Valuations found "no other values or elements of value . . . to exist":<sup>2</sup> a conclusion which the Commission, in the Texas Midland case, declared constituted full compliance with the requirements of the Act.<sup>3</sup> The Kansas City Southern opinion, however, modified this holding: "No other values or elements of value to which specific sums can now be ascribed are found to exist."<sup>4</sup> In the Texas Midland case the carrier had insisted that the law obligated the Commission to find and report any elements of value, while the Commission insisted that the carrier "name a figure which . . . should be found."<sup>5</sup> Altho the latter failed to make claim in terms of dollars, it asserted that the following items constituted "other values and elements of value":

- (1) going concern value,
- (2) connection with other lines,
- (3) good station facilities,
- (4) gradients.<sup>6</sup>

<sup>1</sup> For discussion of the unimpaired investment concept, see *Railroad Valuation*, pp. 105, 106, 108-110, 114-121, and the references there cited.

<sup>2</sup> Tentative Valuation, Texas Midland, p. 2; Winston-Salem Southbound, p. 2; Kansas City Southern, p. 8. Mr. Brantley (A., B. & A. Brief, p. 410) asked that the finding be amended to read: "No consideration has been given to intangible values."

<sup>3</sup> Texas Midland, 1 Val. Rep. 1, 71; see however, Protest, Texas Midland, p. 9; Winston-Salem Southbound, p. 6; Kansas City Southern, p. 55; Texas, New Orleans, and Mexico, p. 8. But no other values or elements of value were found for the Winston-Salem Southbound, 1 Val. Rep. 187, 206.

<sup>4</sup> Kansas City Southern, 1 Val. Rep. 223, 292.

<sup>5</sup> 1 Val. Rep. 1, 69; compare Notes and Comments, p. 230:

"As to other values and elements of value, the tentative valuation fails to comply with the law. . . . It is plain that the law requires there "intangibles" to be ascertained and reported . . . It is as much the duty of the Commission to investigate and ascertain the facts as it is to inventory the physical property in detail and show the several costs thereof as required." See also A., B. & A. Brief, pp. 388-400

<sup>6</sup> 1 Val. Rep. 1, 69.

The Texas Midland developed no evidence on these points, but to support the general contention, distinguished railroad men testified at length for the A., B. & A. and the Kansas City Southern.<sup>1</sup> The object was rather the establishment of the existence of such elements of value than their appraisal in dollars. The task of appraisal was left to the Commission as a part of the task imposed by the terms of the Act. "There ought to be some way," said Mr. Lamb.<sup>2</sup> And Commissioner Daniels has accepted the reasoning of the carriers, as is indicated by the following excerpt from his dissent in the Kansas City Southern case:

I am not satisfied with the negative finding proposed in this report to the effect that no other values or elements of value are found to exist to which a definite figure can be attached unless this finding be understood merely in the sense of a progress report. . . .

I do not concur in the intimation in previous valuation reports that the carrier's failure to show us the method to employ in estimating other values or elements of value or the carrier's failure to demonstrate to us the appropriate figure to be attached . . . constitutes the fulfillment of our affirmative duty in the premises. . . . The search for and the appraisal and reporting of these items for intangibles, if they exist, is an obligation imposed on the Commission."<sup>3</sup>

The franchise, as such, and franchise value have occupied a relatively small place in the discussion of intangibles. The Alabama Rate cases have been cited,<sup>4</sup> and

<sup>1</sup> Hearings, March, 1917, pp. 18-47 (Mr. E. T. Lamb, President, A., B. & A.); pp. 49-63 (Mr. E. M. Durham, Jr., Valuation Engineer, A., B. & A.); pp. 307-309, 325-374 (Mr. J. F. Holden, Vice President, Traffic, Kansas City Southern); pp. 357-395 (Mr. R. J. McCarty, Vice President, Accounts, Kansas City Southern); pp. 565-580 (Mr. L. F. Leroe, Chairman, Kansas City Southern).

Mr. Butler stated (*ibid.*, p. 873): "We are not going to develop any theories or any opinions as to what figure the Commission should set down separately for other values and elements of value." Compare Mr. S. W. Moore of the Kansas City Southern to the same effect, pp. 339, 346.

<sup>2</sup> *Ibid.*, p. 36; and see the excerpt from Mr. Butler's argument, 1 Val. Rep. 1, 69. The promise contained in the Carrier Valuation Brief of 1915 has not been fulfilled: "The method by which these other values and elements of value should be measured will be submitted to the Commission at some later time." P. 532.

<sup>3</sup> 1 Val. Rep. 223, 272.

<sup>4</sup> 196 Fed. 649, 800; 197 Fed. 954; discussed critically, Railroad Valuation, pp. 147, 148; cited, Carrier Valuation Brief of 1915, p. 527; Texas Midland Brief, pp. 20, 98,



the fact that the A., B. & A. paid a franchise tax was put in evidence.<sup>1</sup> And that is all. The emphasis has rather been upon "going concern value" in terms of that "strategic" value which seeks to establish as "elements of value," the factors which make for larger gross earnings, or lower operating costs, and which, therefore, govern net earnings.<sup>2</sup>

The considerations which, it is alleged, make for this "intangible value" are

Density of population and traffic.

Nature and permanence of population and traffic.

Facilities for doing business, including interchange facilities.

Physical characteristics, governing operating conditions.

Even for the Texas Midland it was urged that a "value" should be found because of its connections, facilities, and gradients.<sup>3</sup> For the Atlanta, Birmingham and Atlantic and the Kansas City Southern similar claims were substantiated by the testimony of the distinguished railroad men already cited. President Lamb indicated that investors would be influenced by the fact that the

190, 312, 419; Hearings, March, 1917, p. 22; no reference to this evidence appears in Mr. Brantley's brief, altho it is referred to in *Protest, A., B. & A.*, p. 8.

<sup>1</sup> The Kansas City Southern Protest speaks of "the value of franchises and privileges . . . conclusively established against the carrier in the states of Missouri, Arkansas, and Texas by the assessing and taxing boards of those states." P. 67.

<sup>2</sup> See discussion, *Railroad Valuation*, pp. 150-153; also Hearings, October, 1918, p. 3, argument of Mr. S. W. Moore, General Solicitor of the Kansas City Southern, citing *Northern Pacific v. The State*, 147 Pacific 45, in which the Supreme Court of Washington upheld a valuation based upon "market value" for the purposes of taxation; Hearings, October, 1915, p. 164, argument of Mr. Sanford Robinson; and Texas Midland Brief, p. 380.

In the Texas Midland Brief, it is said:

"The value which is here designated as franchise value is in reality all the value in an assembled and established plant, doing business and earning money, over one not thus advanced, and not the value of the bare franchise alone." P. 418.

<sup>3</sup> Texas Midland, 1 Val. Rep. 1, 66; Tentative Valuation, p. 15; and Hearings, March, 1917, pp. 866, 867, a letter from the Chief Engineer of the Texas Midland, in which the assertions are made. The fact that Texas taxed the Midland on the \$544,000 "intangible value," disclosed in this letter, is referred to in Notes and Comments, p. 221.

A., B. & A. "traverses a section of the country rapidly increasing in population and wealth."<sup>1</sup>

More than this, the road interchanged traffic at twenty-eight points; it possessed the lowest grade from Birmingham to the seaboard, and had been increasing its trainload; net earnings had grown.<sup>2</sup> The Kansas City Southern officials gave parallel testimony, Mr. Holden, a traffic official, describing in detail the size and growth of the cities served, their commercial and industrial importance, the interchange facilities, the composition and growth of the traffic, and the organization and functioning of his department.<sup>3</sup> The expressed purpose was "to prove that the Kansas City Southern possesses a volume of traffic passing over its rails amounting to . . . 4,000,000 tons of freight per annum, to show how that has been built up, and to show what the prospects are of its continuing and increasing in the future."<sup>4</sup> And the Elgin, Joliet and Eastern (the Chicago "Outer Belt") has emphasized particularly "the density of the traffic over the railroad . . . by reason of its favorable location and connection with other railroads and industrial plants, etc., etc."<sup>5</sup>

The Texas Midland, Winston-Salem and Kansas City Southern cases testify to the truth of the assertions made by the carriers: traffic connections are listed; the density of traffic is summarized; the character of the adjacent country is described, and its products classified; the maximum grade and curvature is stated.<sup>6</sup>

<sup>1</sup> Hearings, March, 1917, p. 45. The growth of the tributary territory is exhibited at length, pp. 20, 21, and the increase in traffic density, p. 22.

<sup>2</sup> Testimony of Mr. Lamb, Hearings, March, 1917, pp. 19-23; summarized A., B. & A. Brief, pp. 410-416; also p. 402.

<sup>3</sup> Hearings, March, 1917, pp. 307-374, including elaborate tables and diagrams by way of illustration, pp. 331-337; summarized, Protest, Kansas City Southern, pp. 58-65.

<sup>4</sup> Statement of Mr. S. W. Moore, Hearings, March, 1917, p. 339.

<sup>5</sup> Protest, E., J. & E., pp. 44, 46.

<sup>6</sup> 1 Val. Rep. 1, 72, 81; 187, 202, 208; 223, 275, 323-328.

The A., B. & A. Protest insists that the denial of the existence of "other values," and a report, in the same document (the Tentative Valuation), of interchange facilities, terminals, developing traffic and favorable grades constitute a contradiction.<sup>1</sup> The criticism is at least pertinent. What is the function of data reflecting the forces which make for earnings if no "values" are assigned? The difficulty is, of course, the inherent one: to appraise these "elements of value" in terms of dollars necessarily involves a consideration of earnings, when those earnings are themselves under consideration. "Unless the so-called 'Other Values and Elements of Value' do produce a favorable effect on the net earnings, they are of no value."<sup>2</sup>

But if earnings be rejected, what of costs? The measurement of intangible "value," or "going value" by an accumulation of preliminary deficits below a fair return has been suggested to the Commission, which has, however, postponed discussion: "These deficits are not elements of value, but they are pertinent facts to be given consideration in a proper proceeding."<sup>3</sup>

<sup>1</sup> P. 9. The same claim is found in the Winston-Salem Southbound Protest, p. 6.

<sup>2</sup> To this statement, put in the interrogative by Mr. Farrell, Mr. Loree answered: "I should say not as affecting the market value of your securities, no." Hearings, March, 1917, p. 580. See the discussion in detail covering the essential question of principle, Railroad Valuation, pp. 150-153; and the analysis by Mr. Brantley, A., B. & A. Brief, p. 402.

In the Texas Midland Brief it is said:

"There are, of course, a great many operating plants whose total value exceeds their physical value by only a nominal amount. The other values and elements of value may be nominal in the case of an operating plant whose past performance and present and future prospects do not hold out the hope of success." P. 354.

<sup>3</sup> Texas Midland, 1 Val. Rep. 1, 71. Compare Winston-Salem Southbound, *ibid.*, p. 198:

"Whether in fixing a value for purposes under the act to regulate commerce, we should increase the cost of reproduction by the amount of deficit which the carrier may have incurred during the early years of the enterprise, will be a proper consideration when we come to state a single sum as value of the common-carrier property for such purposes. That question we leave intact. As stated, in the final valuation herein made we have the basic facts. The record herein shows no other values or elements of value." The Texas Midland Brief, p. 453, recognises "the logical difficulty in translating losses, actual and realised, or estimated and probable, directly into terms of value. It is not true that the greater such losses the greater is the value."

This conclusion (the steps by which it was reached are not given) is in accordance with sound reasoning. The Wisconsin deficit theory<sup>1</sup> is not valid since it purports to measure investment, not in terms of saving, of effort, of sacrifice, but by results.<sup>2</sup> But this is not the whole story. For the early "starving time" normally coincides with the period in which effort is expended (and funds are diverted) to the building up of permanent organization and external relations.<sup>3</sup> It is even conceivable that a part of the original bookkeeping deficit may be due to those extraordinary maintenance charges representing net additions to plant investment — appreciation.<sup>4</sup> These costs are not, however, limited to the carrier which shows an accumulation of operating deficits, or deficits below a "fair return." The costs of building up an organization and of establishing relationships — which are the important elements in long-run cost of producing service — have been incurred equally by the road which has been operated profitably from the first. In Mr. Prouty's words, "Going concern . . . costs something in the case of every railroad."<sup>5</sup> But no usable method of appraisal has yet been suggested. The conjectural nature of the "valuation" of tangible assets has already been indicated. For an appraisal of "going value" this uncertainty is multiplied manifold.<sup>6</sup>

To be sure, the carriers have proposed a rule. Let "total value" be determined, and let the amount of the

<sup>1</sup> Which it would seem was in part responsible for the presence of the "other values and elements of value" in the Act. See Senate Report 1290, 62d Congress, 3d Session, pp. 94-99, 225-228, the testimony of J. R. Commons and B. H. Meyer.

<sup>2</sup> Railroad Valuation, pp. 166, 167. The Wisconsin Commission is cited at length, Texas Midland Brief, pp. 421-438.

<sup>3</sup> Railroad Valuation, pp. 186, 187.

<sup>4</sup> This argument is presented in the A., B. & A. Brief, p. 323 and following. At p. 324 Mr. Brantley said: "The matter of appreciation, or cost of development, naturally divides itself into two classes, the cost of developing the physical property, and the cost of developing the business."

<sup>5</sup> Hearings, December, 1917, p. 162, an analysis of the fundamental economic problem. See Railroad Valuation, p. 187.

<sup>6</sup> Ibid., pp. 185-187.

"physical value" (whatever that may mean) be subtracted in order to fix upon the other values and elements of value. But this is to make the intangibles a result, and not a cause, of "value."<sup>1</sup>

## VII. FINAL VALUE

The discussion turns then to the determination of "value." What principles govern value determination? A general formula is offered by the carrier interests: "Value in rate confiscation cases is the same as in condemnation cases,"<sup>2</sup> and in support of this contention a quantity of muddy paragraphs from court opinions is quoted.<sup>3</sup> But in none of these opinions has the condemnation-regulation analogy been critically analyzed; and, indeed, had such critical analysis been made, before the force of precedent rendered sufficient mere citation of the "rule," its logical insufficiency must have been readily apparent. Whatever the history of the doctrine which would identify regulation as *pro tanto* condemnation, the fact is that regulation is not *pro tanto* condemnation, and that to consider it as such, and not to measure "value" independently of earnings, is to estop regulation.<sup>4</sup> The analogy is premised upon the assumption that lower rates will reduce earnings, and to that extent, the value of the property,<sup>5</sup> the difference between the old net earnings capitalized, and the new net earn-

<sup>1</sup> Kansas City Southern, 1 Val. Rep. 223, 270.

<sup>2</sup> Notes and Comments, p. 37; compare Texas Midland Brief, pp. 19, 81, 91; Texas Midland Reply Brief, p. 20; Hearings, May, 1915, p. 132, Mr. Sanford Robinson, citing Ames v. Union Pacific, 64 Fed. 165; *ibid.*, January, 1917, p. 303.

<sup>3</sup> Texas Midland Brief, pp. 81-98.

<sup>4</sup> Railroad Valuation, pp. 9-11, 15, 145, 146.

<sup>5</sup> "How else justify the analogy at all? But to test rates by the value of the property before the act of regulation is made effective means the abandonment of regulation. And to test them by the value of the property, once the new schedules are in effect, means the approval of any schedule that may be established. The vicious circle is clearly present." *Ibid.*, p. 11.

ings capitalized representing the "value" taken. From the nature of the case, no compensation is paid for this "value" taken or destroyed. The purpose for which "value" is determined in a condemnation proceedings, and that for which it is determined in a regulation controversy is therefore quite different. In the rate case value is proposed as a measure of existing earnings, not, of earnings destroyed; in condemnation, value is a measure of that which is taken, of the consideration to be paid for the destruction of all earnings. The assumed analogy is not valid.<sup>1</sup>

But the tactics of the carriers have been to ignore such logical analysis and to insist upon "what the cases say as to the nature and attributes of value."<sup>2</sup> In familiar terms, "value is power in exchange . . . the amount in dollars which a purchaser not under compulsion to buy will part with to obtain the item of property, and which the seller not under compulsion will accept for it." The carrier contentions on depreciation, deferred maintenance, appreciation, strategic value, and going value are readily explained in the light of this definition. Because a railroad worn to a state of normal depreciation will earn (gross) at least as much as a new road (other things being equal) it is "worth" as much. Because the roadbed of such a railroad will cost less for maintenance, it is "worth" more than a new roadbed. And a purchaser, influenced by conditions governing

<sup>1</sup> The parallel in language used in condemnation cases and in regulation cases has been due to the general inadequacy of the analysis, and to the uncertainty of the concept. In the *Texas Midland* Brief, after reviewing the series of Supreme Court opinions beginning with *Reagan v. Farmers' Loan & Trust Co.*, it is said:

"The foregoing cases remove all question of doubt as to the legal meaning of 'fair value' as that term is used in the case of *Smyth v. Ames*. It is 'just compensation' guaranteed by the constitution, the value of property taken in condemnation cases, and that value on which fair return must be allowed in rate cases. Every prescribing of rates is a taking of property, and under the constitution there must be just compensation." P. 91. See discussion of *Knoxville Water Co. v. Knoxville*, 189 U. S. 434, *Railroad Valuation*, pp. 14, 15.

<sup>2</sup> *Texas Midland* Brief, p. 73.

traffic density and operating costs, will pay more for the established property in a developing community. Net earnings are, therefore, the important element. The "physical value" is only important since by its deduction from total value — however that value may be determined — the intangible value or "going value" is determined.<sup>1</sup> So runs the carrier argument.

The decisions relied upon as precedents upholding this contention are tax and condemnation opinions, the leading tax cases being the *Express Company* cases and *C., C., C. & St. L. v. Backus*; the leading condemnation case being *Monongahela Navigation Company v. United States*. In the latter case, the Court said:

The value of property, generally speaking, is determined by its productiveness — the profits which its use brings to the owner. . . . The commerce on the Monongahela River, as appears from the testimony is great. . . . A precisely similar property, in a stream where commerce is light would naturally be of less value, for the demand for the use would be less. The value, therefore, is not determined by the mere cost of construction, but more by what the completed structure brings in the way of earnings to its owner.<sup>2</sup>

And there is the "very apt illustration" in the *Backus* case:<sup>3</sup>

Suppose there to be two bridges over the Ohio, the cost of the construction of each being the same, one between Cincinnati and

<sup>1</sup> After devoting over a hundred pages to an exhibition of precedents, the *Texas Midland* Brief falls back upon this subtraction program:

"The value of the property is to be determined as a whole (value is single in fact and substance the capable of analysis in thought and discussion) and the other values and elements of value may be found by subtracting the amount attributable to the physical elements, the so-called 'physical value' from the value of the whole." P. 475.

The same "rule" is stated by Mr. Butler, Hearings, December, 1917, p. 49; compare *Re Marin Municipal Water District*, P. U. R. 1915-6, 433 (Cal.), a condemnation case quoted at p. 375, and *Appleton Water Works Co. v. R. R. Commission of Wisconsin*, 154 Wis. 121, a condemnation case, quoted, pp. 434-436.

The *Kansas City Southern* Reply Brief, p. 10, cites a series of cases (*L. & N. Ry. Co. v. Greene*, 244 U. S. 532; *Greene v. L. & I. Ry. Co.*, p. 490; *Illinois Central v. Greene*, p. 555) involving a Kentucky statute which determined "value" by the capitalization of earnings, the assessed value of the tangible property being deducted to determine the value of the intangible property.

<sup>2</sup> 148 U. S. 312, quoted at length, *Kansas City Southern* Brief, pp. 110-112.

<sup>3</sup> *Ibid.*, p. 61.

Newport, and another twenty miles below, and where there is nothing but a small village on either shore. The value of the one will, manifestly, be greater than that of the other, and that excess of value will spring solely from the larger use of the one than of the other.<sup>1</sup>

Railroad valuation based upon earnings represents then merely the application of "the methods and processes ordinarily employed in every-day affairs in arriving at the value of any industry or any commercial enterprise."<sup>2</sup> The claim had been asserted in general terms by Mr. Brantley, but not emphasized. Its elaboration was the task of the Kansas City Southern counsel. Did not Justice Harlan in *Smyth v. Ames* include "probable earning capacity . . . and operating expenses" in the items "to be given such weight as may be just and right in each case?"<sup>3</sup> This was "precisely the rule" for which Mr. Moore of the Kansas City Southern contended.<sup>4</sup>

<sup>1</sup> 154 U. S. 439.

In the *Express* cases the Court defined value in terms of the power to produce income, or for the purposes of sale. 166 U. S. 185.

<sup>2</sup> Kansas City Southern Brief, p. 107. The Brief further declares:

"The principles which determine the valuation of the business of the corner grocery store . . . are the same as those which determine the valuation of railway properties. The ultimate question is what the property may reasonably be expected to produce in the way of profits. . . . The experts in this case have done nothing more than to apply these plain simple rules to the determination of the value of the properties of the carrier."

<sup>3</sup> See A., B. & A. Brief, pp. 22, 26. The Texas Midland Brief, altho quoting the rule in *Smyth v. Ames*, nowhere specifically asks for a value determined by any "fixed rule." See the typical discussion, pp. 451-468, and especially pp. 467 and 467. In the A., B. & A. Brief, Mr. Brantley says:

"It is obvious that where the amount of earnings is the thing in dispute, earnings cannot be capitalised and made the sole measure of value. Notwithstanding the difficulty of the problem, however, the courts have never departed from the principle that value must be determined, nor have they departed from or abandoned any of the fundamental principles for determining values . . . in *Smyth v. Ames* . . . far from departing from the principle of market value, the court distinctly reaffirmed that principle . . . earnings must be considered. . . . The Supreme Court in the Missouri Rate cases, 230 U. S. 74, specifically stated that earnings could be properly considered in reaching a conclusion. . . . The difficulty encountered by the Supreme Court was the extent to which they could consider income and market value." Pp. 26, 27.

<sup>4</sup> Hearings, October, 1918, p. 33; compare discussion by Mr. Moore, *ibid.*, p. 7. Mr. Farrell, *ibid.*, p. 18, stated that he had come to a conclusion which in substance corresponds with that expressed in *Railroad Valuation*, p. 18:

"I have come to the conclusion that what Mr. Justice Harlan had in mind when he wrote that opinion was this, that after having fixed the value in a rate case the tribunal,



The course of the argument is in the following terms. The carrier's net earnings for the year ending June 30, 1914, capitalized at 6 per cent amounted to \$58,587,-933.<sup>1</sup> Now, if it were known with "absolute certainty" that these earnings would continue constant, "then it could be said without fear of contradiction that the properties of the carrier, upon a 6 per cent basis were worth that capitalized amount."<sup>2</sup> But there is no such assurance of constancy, and the continuance of the 1914 earnings, and their probable future increase or decrease must be considered in order to arrive at "an intelligent determination of value."<sup>3</sup> So, if future earnings are to decrease, is it not "absolutely definite and certain" that the enterprise will be worth "materially and substantially less than the amount of its capitalized net earnings at the time assumed?"<sup>4</sup> And is not the converse true? Two expert calculations, based upon prophecy of the future increased earnings, showed pres-

for the purpose of determining whether its rates are reasonable, must observe how much gross the carrier will earn upon that value with particular rates prescribed, take out of that the sum required to meet operating expenses, in order that it may also observe how much then will be left, and how much per cent that will be upon the value of the property."

The Express Company cases (*Adams Express Co. v. Ohio State Auditor*) rose out of a tax law providing that the entire value of the express companies, both tangible and intangible, should be ascertained, and that there should be assessed in Ohio the proportion of this entire value ascertained upon a mileage proportion — an assessment greater than the "physical values" within the state. 166 U. S. 185.

Mr. S. W. Moore, the carrier's solicitor, speaking at the October, 1918, Hearings, quoted the Express Company cases at length concluding with the paragraph:

"The value which property bears in the market, the amount for which its stock can be bought and sold, is the real value. Business men do not pay cash for property in moonshine or dreamland. They buy and pay for that which is of value in its power to produce income or for purposes of sale." Pp. 4, 5.

<sup>1</sup> *Kansas City Southern Brief*, p. 98.

<sup>2</sup> *Ibid.* The Brief continues:

"They would be worth that to an investor for purposes of income and for purposes of sale. They would also be worth that in the markets of the world. They would be equivalent to a bond in that sum running indefinitely in the future bearing 6 per cent interest from date."

<sup>3</sup> *Ibid.*, p. 99.

<sup>4</sup> *Ibid.*, pp. 102, 103. The figures presented (including both those which assumed a future decline in earnings, as well as those assuming a future increase) were based upon calculations seeking to apply the following rule:

"The value of a thing is measured by the sum of the amounts expected to be received from it, discounted to the time of expected receipt." P. 80.

ent value figures of \$82,593,184 and \$74,274,453, the difference being due to the difference in the rate of increase assumed.<sup>1</sup> Moreover, the average market value of the outstanding securities during the five years preceding valuation date (a period during which the witnesses asserted the prices of securities had been "unduly depressed") amounted to \$62,173,595, "the one inference to be drawn being that the true value of the properties was in excess of that sum,"<sup>2</sup> altho value is elsewhere defined in terms of the market.

In answer to the assertion that "if the value depends upon the earnings, in turn the earnings depend upon the value, and so you are going around in a circle,"<sup>3</sup> it was urged that a presumption of reasonableness attaching to the existing rates avoided this difficulty.<sup>4</sup> It was even "confidently" asserted that the law which required the Commission to establish and maintain reasonable rates "effectively" prevented the reduction of the existing schedules.<sup>5</sup> "Any reasonably informed and experienced

<sup>1</sup> The Brief says:

"The weight to be attached to the foregoing computations made with respect to the projections of future net earnings as estimated by Mr. Wymond and Mr. Kinnear, obviously depends upon the accuracy of their estimates, and this in turn, involves a matter of judgment upon which they have given their expert opinion. Is this not, after all, merely the application to the valuation of railway properties of the methods and processes ordinarily employed in everyday affairs in arriving at the value of any industry or any commercial enterprise?" Pp. 107, 108.

<sup>2</sup> *Ibid.*, pp. 123, 124; the Texas Midland Brief, p. 11, rejects the market value of securities on the ground of fluctuation.

<sup>3</sup> Hearings, October, 1918, p. 9. See the argument, based upon the vicious circle, Reply Brief of Messrs. Benton and Farrell, pp. 88-97, an adequate answer to the carrier contention.

<sup>4</sup> Kansas City Southern Brief, p. 83. The Texas Midland Brief, without developing an argument based upon the premises, states (p. 457): "Legally established schedules of rates are prima facie reasonable. One who asserts the contrary has the burden of proof." The Kansas City Southern Brief, says (p. 89): "Here we are not only aided by the presumption arising from the fact that nearly all of the rates in question were fixed or approved by an administrative body charged with the duty of making rates, but there was introduced at the hearing affirmative testimony in support of their reasonableness. Are we not warranted, therefore, in asserting that their reasonableness has been established in this case, particularly in the absence of any countervailing testimony offered by our adversaries?"

In his dissent Commissioner Daniels denies that any binding presumption of reasonableness attaches to existing rates. The point is not discussed in the majority opinion. Kansas City Southern, 1 Val. Rep. 223, 271.

<sup>5</sup> *Ibid.*, p. 90.

business man ready, able, and willing to invest his money in the property would so conclude." <sup>1</sup> — And why? Because the general rate structure into which the Kansas City Southern schedules were adjusted, could not, it was assumed, "be further reduced without injuriously affecting some members of the group composed of the carrier and its four competitors, and thus becoming unreasonable as to them." <sup>2</sup> The value of the Kansas City Southern is to be determined by the capitalization of earnings because competitors less advantageously circumstanced could not, under lower rates, earn a reasonable return. <sup>3</sup> But how is the "reasonable return" of the competitors to be measured? No clear statement appears. But a "value" representing a capitalization of earnings is proposed: "at the valuation shown by the capitalization of net earnings for that period, the rates were barely compensatory, and substantially less than reasonable rates." <sup>4</sup> Accordingly

<sup>1</sup> 1 Val. Rep. 94.

<sup>2</sup> Kansas City Southern Brief, p. 91; an argument along these lines is hinted, but not developed. A., B. & A. Brief, p. 29. This argument also Commissioner Daniels discourses, Kansas City Southern, 1 Val. Rep. 223, 271, 272.

<sup>3</sup> The authority for this "principle" is Judge Trieber, who in the Arkansas Rate cases, 187 Fed. 290; stated "in clear and concise language" what the attorneys for Kansas City Southern conceived to be "the common and accepted judgment of business men upon the subject." Brief, pp. 70-73. At p. 117 the Brief further says:

"The carrier is justly entitled to its advantages arising from its large volume of business and its low operating cost. Provided only that its rates for each individual service are reasonable in themselves, its profits which arise from the greater volume of its traffic are legitimate profits and should be taken into consideration in the determination of value." In support, *Cotting v. Goddard*, 183 U. S. 79, a stockyards case is cited.

<sup>4</sup> Kansas City Southern Brief, 92:

"The scale of rates in effect on valuation date yielded the Cotton Belt a 6 per cent return on but \$22,567 per mile, and the Missouri, Kansas & Texas upon \$31,476 per mile. If the values of those two railroads on valuation date are fairly represented by those amounts respectively, then, as to them, the rates were barely compensatory, which is substantially less than rates which are reasonable."

The four competitors are the St. Louis, Iron Mountain & Southern, the St. Louis & San Francisco, the St. Louis Southwestern (Cotton Belt) and the Missouri, Kansas, & Texas.

It was asserted, building upon Mr. Prouty's language in the Eastern Advance case, that the return to the railroad presented a different problem from the return to a local public utility, a gas or water plant, since a "differential" appeared in competitive operations which could not appear in the earnings of a monopolistic local utility. See the discussion, *Texas Midland Brief*, p. 458; and *Kansas City Southern Brief*, pp. 44-49.

it is suggested that the rates should be increased, altho for the purpose of the argument it is sufficient to prove that the existing scale cannot be further reduced — a fact “abundantly established” by the “foregoing computations.”<sup>1</sup>

The problem presented in these terms and the essentials of the argument are not new.<sup>2</sup> The difficulty arises from the failure to recognize that there is no single rate of return which can be labeled as “reasonable” and applied to all carriers alike.<sup>3</sup> The same premise is fundamental in the argument which asserts that the railroad surplus presumably represents the results of exploitation.<sup>4</sup> But the premise is fallacious:

Existing railroads do not represent the same exercise of judgment in original planning, the same efficiency in creating and maintaining

<sup>1</sup> Kansas City Southern Brief, p. 93. Mr. Untermeyer has said:

“If you should reduce our rates, all the rates in that territory, so that we could get 6 per cent and our competitors get nothing, we could not claim that the rate was confiscatory, but you could not reduce the rate as to us without reducing it as to them, and they could claim it is confiscatory.” *Hearings*, October, 1918, p. 35.

But if the value is dependent upon earnings, it would seem that the road with no net earnings would have no value, upon the same basis that the value of the Kansas City Southern would be shrunk. The argument is ingenious and plausible, but it does not avoid the vicious circle which would measure value by the capitalization of earnings which themselves are to be measured in terms of that value.

<sup>2</sup> See *Railroad Valuation*, pp. 150-153, 202-205, and the references there cited, especially S. O. Dunn, *American Transportation Question*, p. 93 and following.

<sup>3</sup> *Ibid.* The omission of analysis is not limited to the carrier interests alone, as is indicated by the following statement of Mr. Farrell:

“It might be true that if you had determined the amount of money upon which a particular railroad had a right to a fair return, you would find that the company was in fact obtaining a net return which was more than a fair return upon that amount of money; and it might further be true that in view of some of the conditions which existed in the same general territory you would think best to allow that carrier to continue to earn more than a fair return. But that would be the good luck of that carrier, and not its constitutional or other legal right. That is the point I make. When people claim that they have a constitutional right to more than a fair return because of the condition of some other carrier, then I say that no such right exists.” *Hearings*, December, 1917, p. 127.

The idea of the fair return as a single rate is inherent also in the basis of the following statement of Mr. Farrell:

“If they did use poor judgment in locating a railroad the cost might be \$1,000,000, but they might not be able to earn, as a matter of fact, might not have a right to earn on more than \$500,000, simply because they could not do so without exacting unreasonable rates.” *Hearings*, March, 1917, p. 427.

Compare Mr. Samuel Untermeyer's discussion, *ibid.*, October, 1918, p. 34.

<sup>4</sup> *Railroad Valuation*, pp. 171-173. See also the discussion of “unproductive improvements,” pp. 195-198, and *Texas Midland Brief*, pp. 312, 313.

an organization, in establishing relations with shippers and passengers, in solving operating problems. Clearly focused are seen the forces which make for the differential element in business profits. The mode in which this differential accrues to the better located, better managed roads can be readily indicated. Location is important from two points of view: from that of ability to secure large gross earnings, and from that of economical transportation of the traffic secured. The latter refers simply to the physical characteristics: to strategic location in a river gorge, to the possession of a water level route — which mean a lower ruling grade, less curvature, and therefore, other things being equal, a larger margin between operating expenses and revenue than would be possible were the road operated through the hills or mountains. It is the old question of the New York Central and the Pennsylvania, the one operating through river valleys and along the lake shore, going around the mountains, the other cutting through. An extra gain comparable to a site rent appears, as a reward for skill in original location — perhaps even for the one company having first dared risk the cost of building.

Location has also an important bearing upon the quantity and classification of freight transported, and upon the density of the passenger traffic; and, consequently, upon the amount of the gross earnings. . . . In the light of the composite nature of the railroad return, it would, therefore, appear well-nigh impossible to isolate an element of unearned increment.<sup>1</sup>

Under a given schedule of rates, it is almost certain that unequal net earnings will accrue to carriers differently circumstanced. The Commission has itself recognized that the more fortunate competitor, "when its rates had been just and reasonable," may accumulate a surplus at the same time generous dividends are earned.<sup>2</sup> This is in reality a recognition of the fact that

<sup>1</sup> Railroad Valuation, pp. 203, 204.

The Kansas City Southern Brief compares five railroads with five farms, and seeks to show that value is determined upon the same basis: the capitalization of earnings (economic rent). Pp. 41, 42.

<sup>2</sup> See paragraph quoted by Mr. Moore, Hearings, October, 1918, p. 5, from the Spokane case, 15 I. C. C. 376, 415. The same paragraph is quoted in the Texas Midland Brief, p. 459. Other cases, quoted to show that the Commission has held to the rule that "the entire situation" should be canvassed are quoted, pp. 459-467. Receivers & Shippers Ass'n of Cincinnati v. C., N. O. & T. P., 18 I. C. C. 440; Com'l Club of Salt Lake City v. A., T. & S. F., 19 I. C. C. 218; Superior Com'l Club v. G. N., 24 I. C. C. 96; Coke Producers, etc. v. B. & O. R. R., 27 I. C. C. 125; Eastern Advance case of 1910, 20 I. C. C. 243; The Five Per Cent case, 31 I. C. C. 351.

the fair rate of return is a variable. But because the fair return is looked upon, not as a variable, but as a constant to apply to all roads alike, it is insisted that the only way to secure a basis upon which to measure the reasonableness of the return, is to capitalize the earnings on the basis of the rate fixed upon as fair. A more obvious example of circular reasoning is hard to imagine.

If, then, the "value which inheres in a property, and which is represented by its productiveness, its profitability, its earning power,"<sup>1</sup> be rejected as the basis of a final value, which, being determined, can be used as a measure of reasonableness, what guide shall the Commission use in its task of fixing the single sum to be set in those "further" tentative and final valuations which are to be duly issued?<sup>2</sup> Certainly the Act offers no help either by way of definition or of formula. Value would seem to be one thing, and cost quite another — a "cost value" is indeed *sui generis*:<sup>3</sup> small wonder that Mr. Prouty despaired: "I would rather undertake to recite the Chinese alphabet backward than read the thing anyway, because it does not mean anything after you have read it."<sup>4</sup> But "value" is not determinable by formula:<sup>5</sup> "The ascertainment of that value is not

<sup>1</sup> Mr. Moore, Hearings, October, 1918, p. 9.

<sup>2</sup> Texas Midland, 1 Val. Rep. 1, 7.

<sup>3</sup> Hearings, March, 1917, p. 411, Mr. George S. Patterson, of counsel for the railroads: "The contention of the carriers is that under this Act, the Commission is required to ascertain one figure representing present value of the property owned or used by the carriers; that value means value, and does not mean cost, neither does it mean a combination of cost and value." See also A., B. & A. Brief, p. 395.

<sup>4</sup> Hearings, March, 1917, p. 674. These words were spoken after Mr. Prouty had served nearly four years as Director of Valuation. Compare his language in the Advance case of 1903, 9 I. C. C. 382, 404; quoted and discussed, Railroad Valuation, p. 26.

<sup>5</sup> It would seem from statements of Senator La Follette, who sponsored the bill in the Senate, that the omission of a "formula" was intentional: "The bill does not undertake to direct the Commission as to what relative weight should be given the several valuations they are authorized to make." 49 Congressional Record, p. 3797; see also pp. 3796, 3802. Mr. La Follette was speaking prior to the Minnesota Rate cases opinion.

controlled by artificial rules. It is not a matter of formulas, but there must be a reasonable judgment having its basis in a proper consideration of all relevant facts."<sup>1</sup> It would indeed seem that "we are sailing on an uncharted sea, without a compass to guide us."<sup>2</sup>

"Guides to judgment" have been suggested: "There are no cases where the value of a going concern of adequate capacity has ever been determined to be less than the cost of reproduction less depreciation of the used and useful property either in a condemnation case or a confiscation case."<sup>3</sup> On the contrary these cases "fully sustain the proposition that the cost of reproduction less depreciation is the measure of minimum value of any going railroad capable of use to justify such value, irrespective of the return from present value at present rates."<sup>4</sup> This assertion is not necessarily inconsistent

<sup>1</sup> 230 U. S. 352, 434. (June 9, 1913, slightly over three months after the passage of the Valuation Act.) The words quoted in the text are a favorite citation of Mr. Pierce Butler. See, for example, Texas Midland Brief, pp. 18, 27, 74, 156, 195, 238, 451, 456, 468, 797; and Hearings, May, 1915, pp. 107, 112.

<sup>2</sup> Mr. Charles Hansel, *ibid.*, March, 1917, p. 817. In the Texas Midland Brief (p. 456) it was said: "The ascertainment of value cannot be reduced to formula. It is an ultimate fact to be arrived at by a consideration of many other facts and circumstances." At p. 452, it had been said:

"It seems to us that all efforts to prescribe exact rules for determining what weight shall be given by the Commission to any fact or class of evidence necessarily must fail. Experienced judgment must be exercised in the light of all the ascertainable facts which are required to be found and reported. The weight to be given to any such fact or group of facts depends upon judgment and the other established facts and circumstances of the case."

<sup>3</sup> *Ibid.*, p. 75.

<sup>4</sup> *Ibid.*, p. 136. This is quoted from the caption of a table in which are listed original cost, cost of reproduction new, and less depreciation, and "ascertained value" as found in sixty-four cases, pp. 136-142. The following (*ibid.*, p. 453) offers a proposed use of the reproduction figures:

"We think it would be proven when the valuations are completed that the present earnings of all the carriers in each rate territory taken as a whole will be found to be less than a fair return upon the cost of reproduction new of the property used for transportation purposes in the territory. If this shall prove to be the fact, then the rates prevailing in such rate territory shall be assumed to be horizontally raised by a percentage sufficient to produce net earnings of at least 6 per cent upon the total cost of reproduction new of all property used for common carrier purposes in the rate territory, and the earning capacity of the carrier under such assumed reasonable rates shall be ascertained and reported in determining value."

with the claim that "it is true as a general rule that a railroad which was built to meet a reasonable public need for its service, which was well located and constructed and which has been properly maintained and is in a suitable state of efficiency, is worth more than its cost of reproduction new."<sup>1</sup> Cost of reproduction less depreciation is claimed to set only a minimum in any case; and further, the carrier would measure reproduction less depreciation and cost of reproduction new by the same amount (in dollars) since it is claimed that in the absence of deferred maintenance there is no depreciation. The argument based on the appeal to authority is complete.<sup>2</sup>

Furthermore did not Justice Hughes, in the Minnesota Rate cases, say that "cost of reproduction is of service, when it is reasonably applied, and when the cost of reproducing the property may be ascertained with a proper degree of certainty?"<sup>3</sup> And is not cost of reproduction "a fundamental, tho not necessarily a controlling element in value?"<sup>4</sup> Mr. Prouty himself has called "cost of reproduction . . . one and perhaps

<sup>1</sup> Texas Midland Brief, p. 397; compare Texas Midland, 1 Val. Rep. 1, 7:

"The carrier has stated its views . . . in oral argument and has fortified its oral argument by written briefs, in which it has fully set forth its claim, that, in the instant case, reproduction cost new is the sum which is to be stated as value." See Hearings, December, 1917, p. 49.

Mr. Prouty, *ibid.*, December, 1917, referred to the precedents:

"You have heard of the Consolidated Gas case . . . that valuation was made up by taking the cost of reproduction new and including as a part of that, interest during construction and all these overheads . . . the same thing was true in the Knoxville Water case . . . the Cedar Rapids case . . . the Des Moines Gas case." P. 82.

<sup>2</sup> The following quotation from *C., C. & St. L. v. Backus* is also a favorite:

"The true value of a line of railroad is something more than an aggregation of the values of separate parts of it, operated separately. . . . A notable illustration of this was in the New York Central Railroad consolidation." 154 U. S. 439, 444; quoted Texas Midland Brief, p. 120; Carrier Valuation Brief of 1915, p. 483; A., B. & A. Brief, p. 400.

<sup>3</sup> Mr. Moore, Hearings, October, 1918, p. 9.

<sup>4</sup> Report, Railroad Securities Commission, 1911, p. 18. "Eminent railroad men" had stated to the Commission "that in their opinion cost of reproduction or physical value was the most important single element in determining the true value of the railroad as a whole."



the most important element in determining fair value,"<sup>1</sup> while Mr. Farrell (who, presumably, was qualified to speak for the Bureau of Valuation) has said: "we think that the cost of reproduction, properly so-called, may be used in estimating the value of common carrier property other than lands."<sup>2</sup> But there is nothing in either the Texas Midland, Winston-Salem Southbound or Kansas City Southern opinions to indicate what weight the Commission feels should be given to cost of reproduction as a "basic fact."<sup>3</sup> Presumably, the Commission is reserving a holding upon this point until such time as an opinion is called for by the facts of the case before it. Such an attitude would be consistent with previous policy.<sup>4</sup>

But what should be the place of cost of reproduction in the determination of "value"? It would seem probable that the assumed identity of cost of reproduction less depreciation and present value is due largely to an implied comparison of the freely reproducible

<sup>1</sup> Eastern Advance case of 1910, 20 I. C. C. 243, 261. The A., B. & A. Brief, p. 64, calls "present cost of construction or the cost of reproduction . . . the recognized basic factor."

<sup>2</sup> Hearings, December, 1917, p. 135. The phrase "properly so-called" refers to the Commission's definition of reproduction as contrasted with that proposed by the Minnesota Commission. See discussion, previous installment, this Journal, vol. 34, p. 26.

<sup>3</sup> See for example, Winston-Salem Southbound, 1 Val. Rep. 187, 198. In his Memorandum, p. 6, Mr. Prouty said: "This cost of reproduction does not necessarily represent the fair value upon which the carrier is entitled to a return, but what it does represent is clearly and exactly known."

Mr. Brantley emphasizes the present tense found in the court opinions, and the emphasis on "present value"; A., B. & A. Brief, pp. 49-51, and at p. 65: "present value . . . what it would now cost to reproduce it"; and Hearings, December, 1917, p. 25:

"You come down to the question of how you are going to ascertain the value of them. Now, if it is cost, it must be the cost measured by the conditions at the time at which you ascertain the value. That is so because, in the first place, the Supreme Court has, time and again, said it is so. They say it is that property, and not the cost of it, which is protected by the Constitution. . . . The value that is involved in a rate case is the value at the time of the service. So that if that value is to be predicated upon cost, it must be the cost at that time of reproducing the property . . . it must be present day cost." See Railroad Valuation, pp. 97-102.

<sup>4</sup> See Hearings, January, 1917, p. 50. At the December, 1917, Hearing, Mr. Prouty addressed the Commission: "As a general rule, when it was possible to do so, you have avoided expressing any direct affirmative approval, as I understand it." P. 142.

commodity, whose market value tends to approximate reproduction cost, and the railroad which is not freely reproducible.<sup>1</sup> Surely a man can afford to pay as much for a machine already built as he would pay for an exact duplicate. Should not the same rule apply to the railroad? The difficulty arises from the unfortunate presence of the word "value" in the judicial doctrine, without definition of the word. In seeking a measure of reasonableness, the task is not one of fixing a selling price at all, but rather of fixing upon a measure of a part of the long run cost of production: the return to the investor. There is to be no "obliteration," and if calamity should destroy an entire railroad system (so that it was not worth while to make new investment, in order to realize on original portions not destroyed) there is no assurance of rebuilding. Certainly one can be very skeptical that any long headed business man would reproduce say the Texas Midland, unless future prospects, rather than present returns governed his calculations.<sup>2</sup>

And if cost of reproduction constitutes value, upon this alternative theory, should not it apply with equal validity to land? Are not the figures reported by the Commission obviously incomplete, if cost of reproduction, as such, shall measure "value"? No figures of the cost of reproducing or "reacquiring" the carrier lands have been reported or determined. The Commission and its Bureau of Valuation, in Mr. Farrell's frank phrase, have made no attempt to comply with the requirement of the act in this regard.<sup>3</sup> The authority

<sup>1</sup> See Marshall, *Principles of Economics*, pp. 401, 402, and *Railroad Valuation*, pp. 97-102.

<sup>2</sup> See *Texas Midland Brief*, p. 24; and *Railroad Valuation*, p. 99. In the former it is stated: "Railroad service is essential to the industrial and commercial interests of each such territory, and if the railroads did not exist they would be promptly reproduced."

<sup>3</sup> *Brief, Texas Midland Case*, p. 47. See A., B. & A. *Brief*, pp. 590 and following, and *Hearings*, May, 1915, pp. 104, 114, 120, 131; January, 1916, pp. 146, 147; December, 1917, p. 96; January, 1917, p. 267.

In addition to the general responsibility placed upon the Commission to determine cost of reproduction, the Act directs an investigation and report of "present value" and

for this omission is the opinion of the Supreme Court in the Minnesota Rate cases:<sup>1</sup>

The conditions of ownership of the property and the amounts which would have to be paid in acquiring the right of way, supposing the railroad to be removed, are wholly beyond reach of any process of rational determination. The cost of reproduction method is of service in ascertaining the present value of the plant when it is reasonably applied and when the cost of reproducing the property may be ascertained with a proper degree of certainty. But it does not justify the acceptance of results which depend upon mere conjecture.<sup>2</sup>

Because the estimate could be made "only upon inadmissible assumptions and upon impossible hypotheses," as indicated in the paragraph just quoted, the Commission felt that the "duty to abstain from reporting as an ascertained fact that which is incapable of rational ascertainment" was "clear,"<sup>3</sup> a holding reiterated in

"original cost" and "separately the original and present cost of condemnation and damages or of purchase in excess of . . . original cost or present value."

The carrier demand has been that "the mandate of the Congress should be followed," that "the Valuation Act should be obeyed according to its plainest terms." Notes and Comments, pp. 21 and 34. The Kansas City Southern brought suit against the Commission in the Supreme Court of the District of Columbia, seeking a writ of mandamus to require the Commission to investigate and report the "present cost of condemnation and damages or purchase" of the right of way and lands. The carrier appeal to the United States Supreme Court from the decision of the Supreme Court of the District of Columbia is now (Jan. 1, 1920) pending. See *Kansas City Southern*, 1 Val. Rep. 223, 262. <sup>1</sup> *Texas Midland*, 1 Val. Rep. 1, 55-61.

<sup>2</sup> 230 U. S. 352, 452. See *Railroad Valuation*, p. 37; and the *Carrier Valuation Brief* of 1915, pp. 315-370, as there cited.

To Mr. Brantley's mind, it was "perfectly absurd to suppose that the Supreme Court could have condemned a method of ascertaining the cost to reproduce a railroad, which had been in use for twenty-five years." He was "amazed and astonished at . . . the State Commissions, almost every one of whom had been engaged . . . in ascertaining the cost of reproduction of land." Hearings, January, 1917, p. 314.

<sup>3</sup> *Texas Midland*, 1 Val. Rep. 1, 60. Also:

"We are unable to distinguish between what is suggested by the carrier in this record, and nominally required by the act, and what was condemned by the court as beyond the possibility of rational determination." *Ibid*.

The carriers proposed the use of the multiple short-cut method for determining cost of reproduction, tho the figures presented in the *Texas Midland* case purported to represent expert opinion of the cost of reacquiring the land of the railroad, the multiples being average figures, compiled from these data. *Texas Midland Brief*, pp. 904-907.

See also Prouty, Memorandum, p. 53, where it is acknowledged that a figure of cost of reproducing (reacquiring) lands could be calculated by applying a multiple; but Mr. Prouty urged the Commission not to expend the considerable sum which would be necessary to ascertain "a fact most doubtful when ascertained, most productive of dispute and litigation when announced, and which has been held by the court of final resort to be of no possible value."

the Kansas City Southern opinion.<sup>1</sup> Some of the elements of uncertainty were specified:

Not alone do the uncertainties . . . surround what would be the conditions of ownership, of improvement, and of value of near-by property, and of general industrial development, but there can be no certainty as to what land would have to be acquired at a cost to the carriers upon reproduction or a present acquisition. The carrier has been constructed within comparatively a recent period of time; nothing in the record shows us that the reproduction of the road would be regarded in any less friendly spirit by the community as a whole and individual owners in particular, than when the right of way and terminals in question were acquired but a few years back.<sup>2</sup>

Cost of reproduction, moreover, introduces into the standard of measurement, a factor quite extraneous to the business of furnishing transportation — the effect of a shifting level of prices and wages. Already it has been asserted that the cost of reproduction based upon June 30, 1914 is "as much out of date as if . . . made a quarter or half a century ago."<sup>3</sup> Certainly if cost of reproduction is an end in itself, this objection is a valid one, as, indeed, it would seem the Commission has recognized.<sup>4</sup> But it was in terms of investment, of cost, that the calculations of enterpriser and investor were made; and, in the long run, the reward for investment,

<sup>1</sup> Kansas City Southern, 1 Val. Rep. 223, 259-263.

<sup>2</sup> Texas Midland, 1 Val. Rep. 1, 62. The Minnesota Rate case is discussed at length, Texas Midland Brief, pp. 217-245; Reply Brief, pp. 70, 306 and following; A., B. & A. Brief, p. 590 and following. The Kansas City Southern Brief referred to and "adopted" the Texas Midland argument, p. 283. The statement of the carrier stand given in the Texas Midland case by the Commission seems an adequate summary of the protracted discussion.

<sup>3</sup> Notes and Comments, p. 240; also Texas Midland Reply Brief, p. 108.

<sup>4</sup> The Commission met this objection in the Winston-Salem Southbound case by the following language:

"The prices employed by the Bureau of Valuation are not the exact prices which were necessarily in effect upon the precise date, June 30, 1914, but were fixed with relation to that date in such a way as to produce normal prices for periods ranging from 5 to 10 years prior thereto. The use of such unit prices upon items entering into the cost of reproduction of road and equipment (other than land) will permit consideration of the carriers upon a uniform basis as to time, so that as the normal trend of prices of material and labor may go upward or downward correction factors can readily be applied from time to time, as by law required, to the end that all appraisals may be kept to date upon a comparable basis." 1 Val. Rep. 187, 192.

risk assumption, and the direction of enterprise must be met in the case of the railroad which could justify the building. Analyzing the problem in this light, cost of reproduction is repudiated as a logical basis by which to measure the "long run" — the reasonable return.<sup>1</sup>

But may not cost of reproduction (assuming accuracy) be taken as a rough measure of the investment? Much of the existing plant has been built or acquired during the period of price advance, and for such portions, original cost and cost of reproduction might well coincide within reasonable limits of approximation.<sup>2</sup> But the approach of the Commission has been such as to render such coincidence purely accidental. It is obvious enough that the governing conditions imposed by the hypothesis are generally at variance with the conditions which governed actual construction:

*The theoretical reproduction of a railroad, such as is assumed in valuation work, is materially different from the original construction. . . . In theoretical reproduction the property to be constructed by the engineer is before his eyes. The topography of the country through which the right of way runs can be observed. He knows the natural difficulties which will have to be overcome. If rock is found, his estimate is based upon cutting through or removing that rock. The exact amount of materials above the roadbed is capable of ascertainment, and no addition should be made for materials omitted.*<sup>3</sup>

Moreover many railroads were pioneer enterprises, and some even extended into hostile Indian country where

<sup>1</sup> Railroad Valuation, pp. 102-107.

<sup>2</sup> This is suggested in the following paragraph from the Texas Midland opinion:

"While the Commission is not as well informed today as it hopes to be before the end of its work, we are prepared to state with considerable confidence that the cost of producing and equipping a railroad in most parts of this country on June 30, 1914, was a fair average for at least the 20 years preceding. There had been many changes during that period. Some prices had advanced while others had declined. The cost of labor had somewhat increased, but improved methods tended to offset this increase. On the whole, the 1914 cost was just about an average for those previous years during which the great bulk of the railroad property then in use had come into existence." 1 Val. Rep. 1, 140.

<sup>3</sup> Texas Midland, 1 Val. Rep. 1, 25; italics the writer's.

there were neither roads, nor railroads.<sup>1</sup> And often (how often, who can say?) the most economical construction program was not employed.<sup>2</sup> But quite aside from this consideration, which raises questions of ignorance or dishonesty,<sup>3</sup> the reproduction hypothesis represents a conscious attempt to represent the cost of building and equipping the road "as economically as possible under existing conditions"<sup>4</sup>—"by a single continuous impulse."<sup>5</sup> That "the present railroads of this country are the product of a process of gradual development," that "the narrow gauge road has passed into the standard gauge, the low class into the high class, the single track into the double track," that "grades have been improved, curves eliminated"—"all this is disregarded."<sup>6</sup> Present conditions, present methods, present sources of materials, present prices; these shall govern. There need be no preliminary surveys, there are no uncertainties. All other lines of railroad are continued in existence. This railroad once obliterated is in existence for the purpose of reproducing its competitor. And, to secure uniformity, prices as of June 30, 1914 are

<sup>1</sup> "When the Northern Pacific was constructed no other line of railroad operated in its vicinity over most of the distance; today for a considerable part of the way that line is paralleled by the Chicago, Milwaukee & St. Paul. It will be recognized that freight for the construction of the Northern Pacific can be handled over this line.

It was necessary in the building of the Central Pacific to construct expensive wagon roads for the purpose of hauling the necessary materials. Today those are highways maintained at the public expense and are available. Whenever it would be necessary to build a road not in existence, that expense is included in the price." *Texas Midland*, 1 Val. Rep. 1, 139.

<sup>2</sup> For illustration of extra costs because of change in plans, see *Winston-Salem South-bound*, 1 Val. Rep. 187, 194. Here it was said, p. 195:

"Obviously it cannot be assumed that in theoretical reproduction of the property these contingencies would occur, and no sum should be included in the estimate of cost of reproduction new in the valuation, because of such past occurrences."

<sup>3</sup> See *Railroad Valuation*, p. 107.

<sup>4</sup> Brief of Messrs. Farrell and Benton, *Kansas City Southern* case, p. 36. See *Hearings*, May, 1915, p. 31, for the original discussion of the problem, also *Carrier Valuation Brief* of 1915, pp. 36-39.

<sup>5</sup> *Texas Midland*, 1 Val. Rep. 1, 115.

<sup>6</sup> *Ibid.* Similarly wooden cars which had been rebuilt with steel underframes were inventoried as tho originally so built. See discussion by Mr. Wells of the *Texas Midland*, *Hearings*, March, 1917, p. 661.

applied to inventories made as of June 30 of subsequent years. For the Winston-Salem Southbound, for example, unit prices determined as of June 30, 1914 are used with an inventory of June 30, 1915, together with a present value of lands dated June 30, 1915.<sup>1</sup> For later appraisals the difference in dates is even greater. Finally the Commission, to secure that uniformity which it takes to guarantee comparability, even assumes that the credit of all "reproduced" roads will be the same.<sup>2</sup> Surely the indictment of cost of reproduction need not be carried farther. It is purely an artificial and hypothetical figure, bearing no real relationship to past sacrifices, or present investment.<sup>3</sup> And more than this.

<sup>1</sup> 1 Val. Rep. 187, 192. See Winston-Salem Brief, p. 12.

"Our inventories are taken as of different dates, but all prices are applied as of June 30, 1914. The first thought was to apply prices as of the date of the inventory in each case, but subsequent reflection led to the conclusion that this course could not properly be pursued.

"The railroads of this country are competitive. If the costs which are being produced by the application of these prices are to be influential in fixing of rates, they ought to be upon some common basis. Without attempting to indicate how far changes in prices should affect changes in value, it is manifest that all carriers ought to be, if possible, measured by the same standard.

"The fluctuations in price which have occurred since June 30, 1914, illustrate and confirm this view. Many prices, especially of equipment, are today double those of 1914. It would, in our view, be manifestly absurd to apply to the Pennsylvania lines between Washington and Philadelphia, of which the date of valuation is 1914, prices as of that date, while applying to the Baltimore and Ohio, a parallel line constructed at substantially the same time and developed under the same conditions, the prices of June 30, 1918, which happens to be the date of its valuation. If a uniform price be applied that price can be varied by appropriate factors or otherwise as justice may require." Texas Midland, 1 Val. Rep. 1, 139, 140. This answers the objection contained in Kansas City Southern Protest, p. 7.

The carriers, in answer to the original query by Director Prouty, had proposed that the price basis should be the same for all carriers. Hearings, May, 1915, p. 94; see also, Carrier Valuation Brief of 1915, p. 123 and following.

In the Texas Midland Reply Brief it is insisted also that land values of 1916 were higher than of 1914. These "change of value" were alleged to "render impossible the determination of any accurate values" (p. 113). At p. 108, it is said: "The Land Brief attempts . . . to justify its low values by the claim that, because the carrier made its valuation in 1916, the figures then determined reflected certain increases in value." See Mr. Newman's Land Brief, pp. 29-37. <sup>3</sup> Texas Midland, 1 Val. Rep. 1, 115.

<sup>2</sup> This is clearly recognized in the Texas Midland opinion, pp. 31, 139. Compare Mr. Farrell, in his Texas Midland Brief:

"If prices of materials now in use have increased, such increase will of course be reflected in the Commission's estimate of cost of reproduction new." P. 35.

Instances of unit prices alleged to be below actual cost are cited by Durham, "Comments . . . A., B., & A.," p. 33 (equipment); by Samuel Untermeyer, Hearings, October, 1918, p. 28.

When so much is dependent upon "progress of the arts," both past and future, upon the accuracy, adequacy, and comparability of data, upon conditions of service and maintenance, and finally upon the judgment of the subordinate engineer who makes the observation on which the figures ultimately depend, it can hardly be claimed that the Commission's figures in any sense of the word represent approximate accuracy — even upon the hypothesis assumed.<sup>1</sup>

But the Commission has promised to fix upon a single figure of "final value," and the "basic facts," cost of reproduction new, and less depreciation, of plant and equipment, the "present value" of land, original cost to date (where found as a "fact"), together with financial, traffic and operating data, have been made "final" upon the theory that there remains "but the one step of deducing from the facts stated the sum to be found."<sup>2</sup> The entire lack of comparability of these data must be readily apparent: gathered upon different hypotheses, as of different dates, there is no single coördinating factor. The cost of the existing units, less depreciation, what has been here called "unimpaired investment," has been rejected as speculative by the same men who report cost of reproduction as a "fact." Any value, based upon the set of "underlying facts" made final

<sup>1</sup> The hypothesis is summarized in the syllabus of the Texas Midland opinion, p. 2, as follows:

"Cost of reproduction new of the common-carrier property ascertained and stated, upon the assumed basis of the non-existence of the railroad while all other conditions in the same territory were taken as existent on valuation date, that the most practicable and economical construction program is employed, and that to an inventory of items making up the physical property, shall be applied cost prices fairly representative of conditions on valuation date, with the addition of the estimated cost of placing the items in position as of valuation date, and including certain overhead charges."

It would seem that the handling of the second hand units was inconsistent with this definition, and especially the cost and freight on the Texas Midland crane. 1 Val. Rep. 1, 46.

<sup>2</sup> Texas Midland, 1 Val. Rep. 1, 6. See discussion, previous installment, this Journal, vol. 34, pp. 22-25.



in the preliminary opinions, must be an arbitrary figure, however stated in the opinion of the Commission. The very requirements of the Act make this inevitable.

The Valuation Act is, after all, only an attempt to provide the Commission with information concerning the elements of "fair value" listed in the "classic" statement of *Smyth v. Ames*:<sup>1</sup>

In order to ascertain that value the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stocks, the present as compared with the original cost of construction, the probable earning capacity under particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration, and are to be given such weight as may be just and right in each case. We do not say that there may not be other matters to be regarded in estimating the value of the property. What the company is entitled to ask is a fair return upon the value of that which it employs for the public convenience. On the other hand, what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth.<sup>2</sup>

That this "rule" — which is, in fact, no rule at all — should have been invoked by all parties indicates the extent to which the problem of railroad valuation has been dominated by that appeal to authority fundamental in legal documents and legal procedure.<sup>3</sup>

The function of the carrier brief in the Texas Midland case was frankly stated as a consideration of "the principles . . . laid down in decided cases for the guidance of tribunals charged with the duty of determining value."<sup>4</sup> Is not value determination, "a judicial question . . . determined as other judicial questions are, by the application of the settled rules and established

<sup>1</sup> Texas Midland Brief, p. 75.

<sup>2</sup> 169 U. S. 466, 546; quoted Minnesota Rate cases, 230 U. S. 352, 434; analyzed and critically discussed in detail, Railroad Valuation, pp. 16-27.

<sup>3</sup> See Texas Midland Brief, pp. 27, 75; Aitchison, Brief for the Nat'l Ass'n Ry. Com'rs, p. 50; A., B. & A. Brief, pp. 22, 23, 388, 484 and following, a detailed analysis.

<sup>4</sup> P. 75.

principles of jurisprudence?"<sup>1</sup> And so with the definition of value: "The mere language of commissioners, text-writers, economists, valuation engineers and the like, especially when not employed with reference to the meaning of this Act, is of no consequence, and does not require discussion."<sup>2</sup> Only "the decisions of the Supreme Court of the United States, and those of the lower courts . . . in harmony therewith are binding upon the Commission."<sup>3</sup> And yet these final authorities are themselves vague and uncertain. Surely when one finds a "general rule" supported by a jumble of cases on taxation, condemnation, capitalization, and regulation, he may fairly protest.<sup>4</sup>

It is too early to say that the Commission will not fulfil the promise to state single figures of value. It is even conceivable that the sum of cost of reproduction and the "present value" of land may in some cases be so reported. But it is not too early to raise the question of the real scientific validity of such figures (or any other figures reported) when based upon a "judgment" purporting to consider the irreconcilable totals and elements made final in the preliminary opinions. Certainly the totals now being published as tentative valuations offer no basis for a figure of "final value." They represent a

<sup>1</sup> *Kansas City Southern Brief*, p. 110.

<sup>2</sup> *Texas Midland Reply Brief*, p. 50; at p. 100, *Kansas City Southern Brief*, it was said:

"It is to be remembered at all times that the valuation of railway property is a judicial question, and not a legislative one. The rules, principles, and methods must be followed in preference to economic theories or acts of legislative bodies."

<sup>3</sup> *Texas Midland Brief*, p. 50.

<sup>4</sup> *Ibid.*, pp. 353-467; see also *Carrier Valuation Brief* of 1915, pp. 479-532. After all, what the Railroad Commission of Idaho, or a United States District Judge in Arkansas, or the Supreme Court of Wisconsin (or even the United States Supreme Court) did or said, under the peculiar facts of a given case, is conclusive of the validity of no general principle. An argument in terms of "it has always been recognised," or of "this has been so often affirmed, not only by the Courts, but by the Commission itself, that the principle can be asserted without contradiction," or of "the foregoing cases refute the contention" hardly constitutes analysis of a problem. *Texas Midland Brief*, pp. 354, 379.

compliance with a statute, as that statute has been interpreted, but they represent nothing more. The first use of the "rule" in *Smyth v. Ames* was a frank "guess."<sup>1</sup> Will the Commission in making its final reports speak with equal courage? Or will the Commission take refuge behind generality? It suffices for the present to recognize that the progress thus far made is not of a character to silence the skeptic who has small confidence in the conclusiveness or ultimate usefulness of the figures so expensively secured and so elaborately presented.

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<sup>1</sup> C., M. & St. P. v. Tompkins, 90 Fed. 363, 369; Railroad Valuation, p. 17.

## WHAT IS RURAL ECONOMICS

### SUMMARY

Three groups of rural economists, 300.—Dominance of the first group, emphasizing farm management, 301.—Its position unsound in principle, 302.—Difficulties of combining the individual with the social point of view, 303.—Multiplicity of subjects treated, 304.—Doubtful whether rural economics can be separated from general economics, 308.

THE question, what is rural economics, still rouses surprising diversity of opinion, notwithstanding the great volume of current literature dealing with it, and notwithstanding the attention the subject has received in recent years, especially during the war. With increasing density of population, higher prices of farm products, and all the other problems incident to a denser population, rural economics will receive in the future even more attention; and this attention should be intelligently directed. The fact that some men in the field have tried to shunt the subject to the wrong track will justify a careful analysis as to its proper scope.

Among the groups or schools of rural economists, three may easily be distinguished. One group, following Professor Taylor of Wisconsin, includes in rural economics not only that body of economics which relates particularly to agriculture, but also farm management; it looks at the farmer's problems not merely from the social point of view, but also from the individual. A second group, following Professor Carver, would exclude farm management. A third group would hold that there is no such thing as rural economics, but that

what is commonly called rural economics is merely a combination of ordinary economics on the one hand and agriculture on the other.

The first group includes perhaps a majority of what are commonly called rural economists in this country. In fact, since the association of agricultural economists merged with the farm management association, it appears that, as far as associative recognition is concerned, there is now only one brand of rural economics — the farm management brand.

Rural economics, according to Professor Taylor, "has to do with the harmonious adjustment of the relations between useful forms of plant and animal production and the human environment; also between the various people who participate in the production, transportation and marketing of farm products. . . . It is the function of economics to make clear the economic forces with which the farmer has to deal and to develop methods of ascertaining what to produce and how to produce it in order to secure maximum net profits for the farmer and maximum well-being for the nation."<sup>1</sup>

The chief point to be noted in this comprehensive definition is that it takes both the individual and the social point of view; it includes both farm management and economics. In a way it resembles Aristotle's *Oeconomic*, or household management. It also seems to assume that maximum profits for the farmer and maximum well-being for the nation, if not identical, are at least closely related. Representing the attitude of perhaps the largest department of rural economics in the country, the conception of course has merits as well as standing. In the first place, under it a great deal of valuable work has been done. No one is entitled to

<sup>1</sup> H. C. Taylor, *The Place of Economics in Agricultural Education and Research*, Wisconsin Agricultural Experiment Station, Research Bulletin No. 18.

discuss rural economics who is not familiar with some of the contributions of Professor Taylor and his group. In the second place, it gives the subject a direct bearing on the practical problems of farmers, a bearing which general economics sometimes lacks. Under this theory, rural economists, in agricultural colleges, are usually closely associated with teachers of agriculture, and they acquire what is often spoken of as the "agricultural point of view," which is valuable for certain purposes.

Some knowledge of agriculture, going even beyond a good acquaintance with farm life and conditions, is helpful to the economist, especially if he is engaged in work which brings him much in contact with farmers. A rural economist who is untrained in agriculture is at a disadvantage in dealing with farmers, for farmers are likely to be suspicious of "theorists."

One of the greatest merits of what might be called the "Wisconsin view" is that it fits in well with the academic politics of many state institutions. A department of rural economics occupying offices in Agricultural Hall, with other agricultural departments, holding out to the voting farmer not only a few pearls of economic truth but also some data which will point the way to greater profits, is assured more generous support than would be accorded a department which made no pretense of dealing with individual profits.

And yet despite all the advantages, the position of Professor Taylor and his group is unsound in principle. Rural economics should be regarded as economics, not as agriculture. It should be treated only from the social point of view, leaving the question of individual profits to another class of investigators. For several reasons this is the sounder view.

In the first place, it is consonant with ordinary academic usage. Economics is a social science, and the

social point of view is maintained in the better institutions everywhere. Courses in labor problems are not given for the purpose of teaching students to become foremen or labor drivers; courses in trusts and monopolies do not aim to make trust managers of the students; money and credit is not a get-rich-quick course, in spite of a fairly common opinion to that effect. It is true that in some courses closely allied to economics, the individual point of view is sometimes taken. But such courses are usually given in schools of commerce; and the foremost schools of commerce are organized separately from departments of economics. In all the great universities of the country, notwithstanding the development of schools of commerce, economics is still regarded as a social science. What Professor Taylor calls "farm economics" is not mainly economics at all, but farm management.

Another reason why rural economics should take only the social point of view is that otherwise the field is entirely too broad. Economics is itself an exceedingly broad and complex science, sufficiently broad to give ample play to the greatest abilities, without including farm management. No one who has read Marshall or Taussig or Von Thünen carefully will admit that economics is merely "common sense," as one farm management authority has described it. It is that, to be sure, but it should be highly trained and educated common sense. Most economists have had experience trying to get untrained but perhaps "sensible" men to understand some of the elementary principles of the science, and will agree that common sense is not enough. In classes in the elements of economics, the writer has always found 10 per cent or more of the students who are simply incapable of grasping even the elementary principles of the subject.

Farm management also is an appallingly complex science — if it be not too broad to be called a science. As Sir John Sinclair once said: "Agriculture, though in general capable of being reduced to simple principles, yet requires on the whole a greater variety of knowledge than any other art." What a vast number of questions must the farm manager be prepared to answer: how much land shall the farmer buy, what kind of land, where, how; how many cattle shall he keep, what kind, what shall he feed them; what crops shall he raise, and what variety of each; what type of horses shall he use, or shall it be mules or oxen or a tractor? A thousand questions, and more, must be answered — not questions in economics, but in agriculture. The farm manager must know a great deal about animal husbandry, agronomy, poultry husbandry, dairying, soils, agricultural engineering, accounting; in fact he must be a veritable super-agriculturist. The field of farm management alone is so broad that only men of exceptional ability have any business in it. When economics is added, it becomes a proper field for super-men. Professor Taylor's definition suggests either super-men or academic jacks-of-all-trades.

Some rural economists, even of the farm management type, are not qualified to give advice to farmers regarding their business. One of the best things Professor Warren ever did was to point out that most farmers are not fools or fogies, but are working out the problems they meet with considerable good sense and sagacity. The young man who has just finished his courses in economic theory and history of theory and farm management and animal husbandry and poultry husbandry and farm accounts and rural law — the rural economist of the composite type — may be able to render some service to the farmer who has known



enough about farm management to make a hundred thousand dollars, but he will learn a great deal too, and will be lucky if he doesn't occasionally make embarrassing mistakes. He would be in some danger even if his training were entirely in farm management. But he is only half farmer, and the half that is economist doesn't interest the farmer who is looking for advice on the management of his farm.

It was once suggested to the writer that what he has ventured to call the "Wisconsin" view does not imply that the rural economist should be both an expert economist and an agriculturist, but that he should have a good training in economics and then as much work in agriculture as possible. This is not feasible, however, for two reasons. In the first place, unless the rural economist knows agriculture very thoroly, he has no business with the problems of farm management; and, in the second place, since the amount of human energy is in most individuals somewhat limited, "as much agriculture as possible" often means "as little economics as possible."

In agricultural colleges there are special reasons why the rural economist should be a good economist, regardless of his knowledge of technical agriculture. If he is not a good economist, there may be no good economics to be found in the institution; whereas, if he is not a good agriculturist, the defect is not important, because the institution presumably has many good agriculturists on its faculty. But if the rural economist in such a place makes a mistake in his economics, it is serious, for there is no one to check him up. If he slips in his treatment of an agricultural subject, it will do the students less harm, because they can get accurate information from other sources. Agricultural students usually know enough about agriculture to weigh with intelligence

anything that the instructor may say concerning it. But it is the observation of the writer that many of them will swallow any sort of economic doctrine without so much as blinking. It is very important that even an agricultural college should have at least one good economist on its faculty; it does not make much difference whether there are fifty good agriculturists or fifty-one.

It has been urged that rural economics has profited as much from practical farm management investigations as from the research of economists. Professor Taylor pointed out several years ago that economics was "likely to be benefitted more by the men without economic training who are working in the field (of farm management) than by the men of economic training who are not working in that field." This may be true, but it is not an argument for economists to work in a field that they do not understand. It is merely a call for more farm management experts. The writer is glad to acknowledge a heavy indebtedness to some of the men in farm management work; in fact, he would lose almost any book in his library rather than Professor Warren's *Farm Management*; but that does not argue that rural economists should all turn their hands to farm management. It merely emphasizes the value of work along this line; work which of course will be best done by those trained for it, and not by those trained for something else.

The argument that rural economics should take the individual as well as the social point of view in order to enlist adequate financial support is surely inconclusive. If the science has to deal with individual profits in order to get a respectable slice in the budget, let it do so, but let it do so under its own proper name — farm management.

Financial support may be gained at the expense of academic standards. This often happens in agricultural colleges, where rural economics is thrown into the pot with a hodge-podge of political economy, history, sociology, farm management, animal husbandry, dairying, commercial geography, marketing, "geology, meteorology, physics, chemistry, entomology, plant physiology, plant breeding" (I quote from Professor Taylor's bulletin, *The Place of Economics in Agricultural Education and Research*), with some statistics and accounting, and sometimes with a liberal sprinkling, it must be confessed, of fairly cheap buncombe. The rural economist is often thrown into contact mainly with agriculturists, and, while he gains valuable knowledge of agricultural conditions, he frequently loses his economic viewpoint. Sometimes the transition from economist to agriculturist has involved a loss of academic standards.

Some rural economists, even among those who do not follow Professor Taylor all the way, have stretched the field of rural economics to cover too many subjects. Professor Nourse, for instance, in his book of readings, includes extracts on the following subjects: general economic theory, economic history, ancient, medieval and modern, American and European, rural sociology, dietetics, animal husbandry, dairy husbandry, meteorology, botany and agronomy, irrigation, dry farming, drainage, soil chemistry, conservation, immigration, co-operation, farm management, farm accounting, tenancy, land policy, marketing, transportation and rural credits. This is an interesting and stimulating list; but no writer of an original piece of work could cover so much and do it well.

Farm management and economics together thus constitute a field entirely too broad to be covered by most

men. This does not mean that the rural economist should be ignorant of farm management. He will find it necessary to keep in close touch with the literature of that subject. His attitude, however, should not usually be that of a worker in the field, but rather that of a gleaner of such facts as he may find valuable in his study of the broader economic problems. The question of swelling the profits of the individual farmers he can safely turn over to specialists who are looking at farming from a different angle. The point of view of the economist is not individual but social; and individual profits and social well-being are not necessarily identical.

Some economists deny that there is any field of economics which can properly be carved out and designated "rural economics." Professor Herkner once remarked that the more he studied the subject the more he was convinced that it fell into two parts, one of which was agriculture, and the other ordinary economics. One of the most successful teachers of the subject in this country once confided to the writer that he was convinced there was no such thing. A considerable number of the conservative economists of the country would at least agree that rural economics has not yet risen to the dignity of some of the other branches of economics.

There is some point to this view of the matter. Much of what is commonly called rural economics, or "agricultural economics," or "economics of agriculture," is nothing in the world but agriculture. Papers have been read at the meetings of the American Economic Association which could more properly have been given at a dairy congress or a meeting of the farm management association. Some agriculturists imagine they are getting into economics whenever they use figures or statistics or accounting, or whenever they make a few generalizations regarding social welfare.

Much of what is often called rural economics is only general economics. Discussions of rent, diminishing returns, marketing, and coöperation, are quite germane to any treatment of general economics. Much that is contained in Professor Carver's *Principles of Rural Economics*, for instance, would be entirely appropriate in a text on general economics. For some purposes the book is more valuable on this account. In not a few agricultural colleges, students take agricultural economics without having had any work in the elementary principles of economics, and if they are not exposed to some of the general principles in this way, they do not get contact with them at all.

Several writers have viewed rural economics as a sort of general economics, with illustrations from agriculture; have studied the general principles of economics, then made special applications to agriculture; have taken up general theories of interest, then rural credits, general principles governing wages, then wages of agricultural labor; have studied the tariff and the farmer, monopolies and the farmer, railroads and the farmer, and other topics "and the farmer." A textbook based on this plan is a mere book on the principles of economics, with a squint in the direction of agriculture, and is likely to be inferior to an ordinary book on the principles. There is no reason why a farmer should be fed on information regarding himself and his own business alone. Perhaps he would know more "economics" and get a broader outlook if he studied other industries as well as his own. In many agricultural colleges there is entirely too much of this dishing out to the students of science in a diluted, specialized form: agricultural economics, agricultural English, agricultural journalism, agricultural education, rural law. Such "agricultural" courses perhaps look well to the voting farmers, but

they represent a form of politics. Even for agricultural students they are usually inferior to the courses given without any particular stress on agriculture.

Several writers on rural economics have followed the traditional outline used in general economics — dividing the field into consumption, production, exchange, and distribution; distribution being treated as in any elementary course, under the heads value, rent, wages, interest, and profits. Some basis of classification is necessary, some kind of a series of racks or pegs to hang ideas on. But if rural economics is to be rated a separate field of economics, it is deserving of a different classification. Why should distribution be treated just as it is treated in general economics — under value, rent, wages, interest, and profits — when over half of the agricultural income goes to farmers who are land-owners, laborers, capitalists and entrepreneurs all in one? In their case, the question of distribution is a question in accounting, not in economics. The classification does not fit. It is too evidently borrowed property.

If one field of economics be mapped out and designated "rural economics," logic might seem to demand that the rest should be called "urban economics." In fact at least one college in the country has followed this line of cleavage in sociology. Such a division, altho inexpedient in economics, brings out the broad scope of rural economics, even without the purely agricultural matters with which it is often incumbered.

Rural economics has hitherto had a bad name with economists generally, because of the low average quality of the output in the field. The low quality is due to various circumstances. The subject is relatively new, as far as academic recognition is concerned, and has not been well organized. Many rural economists have tried

to cover too much ground — have tried to be both agriculturists and economists. Finally, rural economics has been an attractive field for writers of no economic training whatever. Agriculturists and politicians of all kinds have found relaxation and happiness in writing and lecturing on various aspects of the subject — such as marketing (especially the elimination of the middleman), coöperation, and the tariff, especially the tariff on Argentine beef and Chinese eggs.

Under the influence of Professor Taylor, some rural economists and farm management men united last year in what is called the "Farm Economics Association." This was a step in the direction of broadening the field covered by both groups of men, but was also a step toward lower standards of work. As already pointed out, either rural economics or farm management is a sufficiently broad field for the exercise of the highest talent, and the two together make a field which few men can hope to cover well. The tendency in the future will certainly not be in the direction of broader fields of work, but rather in the direction of more intensive specialization, in order that work may be more carefully done. What we now call rural economics covers too much ground, even without including farm management. It will be broken up into a number of subjects — such as land problems, marketing of farm products, rural credits, coöperation, perhaps others. Any one of these subjects will furnish ample material for a college course. Professor Ely has seen the importance of land problems, for instance, and has done much to turn the attention of economists in this direction. There is no reason why land problems should not prove as important as railway problems, or banking, or taxation, or public utilities. In fact land problems, not only in point of investment and number of people con-

cerned, but also in importance to the future of the nation, are more important than any of the other subjects mentioned. Marketing is a subject so broad that no man can cover it well in all its aspects; and it is significant that the best general treatises on marketing of farm products have been written by economists of no particular training in agriculture or farm management.

In conclusion then, the tendency of the future should not be, and will not be, to combine economic and agricultural matters in any composite course on "farm economics." The tendency will be, not only to separate rural economics and farm management, but even to split rural economics up into a number of subjects or courses. In several institutions this is already being done.

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## THE GOVERNMENT AND THE NEWS- PRINT PAPER MANUFACTURERS

### SUMMARY

I. Introduction: review of 1916-17, 313. — II. The events of 1918-19, 314. — Federal Trade Commission's award, 315. — Commission's supplemental award, approved by Circuit Court, 316. — III. Character of evidence, 317. — IV. Cost of manufacture, 318. — V. Investment, 322. — VI. Rate of profit on investment, 325. — VII. Results of Price Fixing, 326. — Difference in the awards of the Commission and Circuit Judges, 327. — Victory for Manufacturers, 328. — Conclusion, 328.

### I. REVIEW OF 1916-17

IN a previous number of the *Quarterly Journal of Economics* (vol. xxxii, February, 1918) a review was presented of the government's relations with the news-print paper manufacturers during the years 1916 and 1917. The present article continues the story of these relations through the years 1918 and 1919. In the former article it was shown that the rising prices of news-print paper in 1916 led to an investigation of the causes by the Federal Trade Commission and the institution of proceedings by the Department of Justice which resulted in the indictment of seven of the leading manufacturers under the criminal provisions of the Sherman Law. It was also shown that when the case came to trial in November, 1917 a settlement was reached, according to which several of the individual defendants entered a plea of *nolo contendere*, were fined nominal amounts, and signed an agreement with the Attorney General, acting as trustee for the publishers of the

United States, which authorized the Federal Trade Commission to fix their maximum prices and terms of sale for the duration of the war and three months thereafter. The findings of the Commission were subject to review by the United States Circuit Judges for the Second Circuit upon the request of either party to the agreement. Provision was also made in the agreement for the readjustment of prices upon application to the Commission by either party.

It should be noted that in this case the Federal Trade Commissioners acted as arbitrators and the Circuit Court Judges as reviewing arbitrators by consent and not under any powers granted them by law. The proceeding was wholly without precedent, being an emergency measure intended to bridge over a difficult situation during the war.

On account of the provision for a judicial review of their findings, it was necessary for the Commissioners to proceed formally to take testimony by the examination and cross-examination of witnesses according to the existing rules of evidence. This consumed a great deal of time and resulted in a voluminous record. A large number of witnesses were produced by the manufacturers and publishers and the Commission also found it necessary to call and examine various witnesses of its own, especially the accountants and agents who obtained the costs of the manufacturers.

## II. EVENTS OF 1918-19

The hearings proper began on January 7, 1918 and after several lapses were concluded on June 5, by oral argument of counsel. The Commission announced its award on June 18, fixing the maximum base price of \$3.10 per hundred pounds or \$62.00 per ton for standard

roll news in car lots f. o. b. mill, effective as of April 1, 1918, with differentials for sheet news and less than carlot shipments. The manufacturers then petitioned the Circuit Judges for a review of this award and also filed an application with the Commission for a readjustment of the base price for the months of May, June, and July. The Circuit Judges heard the arguments of counsel on August 14 and 15, and announced their findings on September 25, increasing the base price of \$3.10 fixed by the Commission, to \$3.50 per hundred pounds or \$70.00 per ton. The Commission, on July 29 and 30, heard the evidence of the manufacturers regarding the increases in labor, freight, and wood costs since April 1. On October 18, shortly after the announcement of the Court's findings as to the base price, the Commission issued a supplementary award. The April price of \$3.50 fixed by the Court was increased to \$3.63½ per hundred pounds or \$72.65 a ton, for the months of May and June so as to cover increases in wages granted by the National War Labor Board. For July and subsequent months the price was increased to \$3.75½ per hundred pounds or \$75.00 a ton to cover increases in freight rates ordered by the United States Railroad Administration, effective June 25. No advance in price was allowed for alleged increases in wood costs, since it appeared from the award of the Circuit Judges that this matter had been taken into consideration in fixing the base price.

Information subsequently developed by similar proceedings in Canada led the publishers to believe that these increases granted by the Commission, based upon evidence of what they would amount to per ton of paper for two companies, were not justified by the actual costs of manufacture of all the companies parties to the agreement. Therefore in December, 1918, they filed

petitions with the Attorney General and the Commission requesting a reopening of the case and a review of the whole proceeding back to April 1, 1918. The Attorney General, acting as trustee for the publishers, under date of January 21, 1919 requested the Commission to make an investigation and determination of new prices and terms of sale beginning with August 1, 1918. He did not request a reopening of the case prior to this date.

Two hearings were held on the application of the Attorney General and that of the publishers. After the first hearing the Commission decided that it could not go back of August 1, 1918 and do over what it had already done. And after the second hearing the Commission declined to reopen the case even beginning with August 1, on the ground that its finances would not permit the expenditure of the funds necessary to obtain the costs of manufacture. Subsequently the Attorney General petitioned the Circuit Judges to review the Commission's supplementary award, a step which logically should have preceded a new proceeding by the Commission. The Judges heard counsel for the publishers and manufacturers on October 6, 1919, and on November 3 announced their decision, unanimously approving the supplementary award. This probably ends the case as far as the government is concerned, for the agreement expires three months after peace is proclaimed. In most cases the publishers, in making contracts with signatory manufacturers for the year 1920, have waived their rights under the agreement, making unnecessary any further determination of prices.

### III. CHARACTER OF EVIDENCE

The testimony taken by the Commission in these proceedings covered a wide range of subjects and contained a mass of valuable information on the newsprint industry.

Among the witnesses for the manufacturers were officers of the signatory and other companies, representatives of appraisal companies, hydraulic engineers and other technical experts, pulp wood operators, accountants, etc. Among the publishers' witnesses were several of the larger publishers, efficiency and technical experts, economists, and woodsmen. The Commission's witnesses included the paper expert of the Bureau of Standards, the Chief Forester of the United States Forest Service, the Chief Engineer of the Ontario Hydroelectric Commission, the General Manager of the Anglo-Newfoundland Development Company, paper mill engineers, several of its own agents who had investigated pulpwood costs, and the accountants who had obtained the cost of manufacture at the mills. The smaller publishers presented evidence regarding the differential that should be allowed for sheet newsprint, and the paper merchants presented evidence regarding the margin of profit that should be allowed on the resale of paper in large and small lots. Unfortunately this valuable stenographic record was too voluminous to be printed; but being a public document it is accessible to those interested. In the last analysis the question of price sifted down practically to three fundamental propositions: (1) cost of manufacture, (2) investment in the business and (3) rate of profit that should be allowed on investment. It is the purpose of this review to discuss these propositions. In addition to the question of price

there was the question of terms of contract, which involved a consideration of title, and the specifications for weight of paper, moisture content, and other technical matters.

#### IV. COST OF MANUFACTURE

From the beginning of the proceedings it was realized that cost of manufacture would be the basis for fixing prices. The Commission tried to obtain accurate cost figures by sending out schedules, but when this failed a firm of accountants was employed to make a thorough examination of the records of the companies. The manufacturers also employed a firm of accountants to prepare cost statements for them. The two accounting firms then compared the figures acquired independently and agreed upon the principles that should apply in making up the cost reports for the record. This greatly reduced the size of the record and the time required for the examination and cross-examination of the accountants. The publishers, not being in a position to furnish cost figures, confined their efforts mainly to pointing out by cross-examination of witnesses the significance from their standpoint of the figures put in evidence.

The accounting principles agreed upon and adopted by the accountants may be briefly summarized as follows. 1. All intercompany or interdepartmental rentals and profits or losses should be eliminated — in other words that there should be a consolidated cost statement covering the total newsprint operations of each company regardless of how conducted. 2. Interest on investment as well as income and excess profit taxes should be excluded from cost. 3. Replacements and new construction should be treated as capital charges

and excluded from costs. 4. The following stumpage charges should be allowed in the cost of pulp wood: (a) For wood cut on crown lands by Canadian companies \$2.00 a cord. (b) For wood cut on own lands \$2.40 per cord for the International Paper Company, and from \$1.88 to \$1.96 per cord for the Minnesota and Ontario Power Company. 5. A depreciation charge should be allowed in costs, based on a rate of 5 per cent on the investment in depreciable property and amounting to about \$3.20 per ton of newsprint paper. 6. That general and administrative expenses should be distributed, as far as possible, over the various products manufactured, according to the cost of manufacture and not according to tonnage.

It was necessary for the larger companies to make a consolidated cost statement because they conducted some of their operations through subsidiaries and transferred wood and pulp from one company or department to another at arbitrary figures which usually contained some profit. The International Paper Company, for instance, operated five woodland subsidiaries, two newsprint manufacturing subsidiaries, and various other minor subsidiaries, and transferred pulp from one mill to another quite extensively. The elimination of inter-company and transfer profits and the elimination of replacements and new construction from the costs of this company resulted in a reduction of about \$8.00 per ton in the actual cost of manufacture; the elimination of bond interest resulted in a further reduction in the costs as shown by their books. Thus while the company claimed a profit on newsprint of about \$7.50 per ton for the year 1917 the revised figures showed an actual profit of about \$16.50 per ton.<sup>1</sup>

<sup>1</sup> The profit or net income shown by the accountant's reports is what is left after deducting all expenses incurred in connection with the manufacture and sale of news-

The stumpage charges on pulp wood cut from owned woodlands and crown land limits were included by the accountants in their costs because the value of woodlands could not be determined with any degree of certainty without a very extensive and costly investigation. It had therefore to be eliminated from the total investment in the business. The method adopted by the accountants in a similar proceeding in Canada was followed in this respect.

Counsel for the manufacturers contended that pulp wood, regardless of how obtained, should be charged into cost at the market price. They sought by the testimony of a considerable number of lumber men to establish what the market price was in Canada and in the United States. On the basis of this testimony they demanded a stumpage charge of \$4.00 a cord for the United States companies and \$3.00 a cord for the Canadian companies. In the case of the United States companies which had purchased their wood lands the justice of including a stumpage charge in the wood costs was generally admitted. There was, however, some difference of opinion as to what this charge should be. The publishers insisted that it should only be sufficient to amortize the original investment and carrying charges of woodlands which they had purchased.

The Canadian companies obtained their pulp wood from crown lands at from 40 to 63 cents per cord as cut. The publishers objected to the \$2.00 stumpage charge which the accountants included in their costs on the ground that the rights to cut crown land wood granted by the Canadian government cost the manufacturers nothing and therefore there was no investment to amortize. This objection was sustained by the Circuit

print paper but before deducting income and excess profit taxes, reserves for contingencies, interest on bonds, dividends.



Judges, who in reviewing the Commission's findings eliminated the \$2.00 charge from the costs of the Canadian companies before computing an average cost. But in the case of the two United States companies they stated that \$2.00 a cord was less than the market rate, indicating that this was not an unreasonable stumpage charge to include in their costs.

The depreciation charge allowed by the accountants, based on a rate of 5 per cent on the investment in depreciable property, was converted to a tonnage basis in order to make it uniform. It amounted to \$1.00 a ton on ground wood pulp, \$2.00 a ton on sulphite pulp and \$2.00 a ton on paper, making a total of about \$3.20 a ton if applied entirely to the finished product of a completely integrated mill. Counsel for the publishers made no serious objection to this charge, but pointed out that if one of the companies had depreciated its properties continuously at this rate some of its mills, which were from twenty to forty years old, would have been entirely written off the books by the year 1918.

Altho costs were presented for each month of 1917, the determining costs in fixing prices were those for January, February, and March, 1918, the three months immediately preceding the effective date of the new prices. As a starting point the Commission figured the average costs of each of the companies for these three months. They, however, first made an allowance of 25 per cent for the cost of new wood — the 1917-18 cut — in the case of two of the largest companies whose record showed that they would be on practically a new wood basis beginning April 1, 1918, when the new prices became effective. Having made this adjustment the Commission found that the costs of the several companies ranged from about \$46.00 a ton for the lowest to about \$62.00 a ton for the highest. The highest cost

company, however, was small and not representative and was therefore excluded both by the Commission and later by the Circuit Judges from their computations. But the variation in cost after excluding this company and allowing for the increased wood cost still amounted to more than \$10.00 a ton, making the adoption of an average cost for all companies unsatisfactory as a basis for fixing a price. The Commission therefore decided to base the price on the costs of the two large high cost United States companies, whose combined output equaled nearly half of the total tonnage involved. They believed that this method would be fairer and would also avoid some of the difficulties involved in the average method. The court, however, in reviewing the case computed an average cost of \$50.25 per ton for eight companies as a basis of price, after excluding the stumpage charge of \$2.00 a cord on crown land wood and apparently including an allowance for increased wood costs after April 1. The average method was also employed by Commissioner Pringle in fixing the price in Canada, altho objected to by counsel for the manufacturers as unfair to the high cost companies. In fact the Canadian price fixed by this method allowed very little profit to several of the highest cost mills.

#### V. INVESTMENT

The determination of what was a fair investment in the business was undoubtedly the most difficult problem encountered in the proceeding. This was due not only to the lack of accurate data on the cost of construction and value of plants but also because of the conflicting views of counsel as to the principles that should apply. On account of consolidations and reorganizations which had occurred the actual cost of con-

structing a mill could not be obtained, except in the case of two or three Canadian companies.

Counsel for the manufacturers contended that while the manufacture of newsprint paper was not a public utility or even vested with a public interest, the principles established by courts and commissions in rate making, taxation and condemnation cases should apply in determining what was a fair investment in the newsprint mills. They argued, therefore, that they were entitled to a just and reasonable rate of return upon the value of the property at the time of its use. In determining the value of plant and equipment they contended that the reproduction value new as shown by appraisals and not the original cost of construction was the correct investment basis.

Counsel for the publishers took the opposite view and denied that principles established by the courts in public utility cases had any application whatever to the determination of investment in a competitive industry such as this. They also pointed out the apparent inconsistency in the argument of the manufacturers that public utility principles should apply in determining investment but should not apply in determining what was a fair rate of profit on investment for the newsprint mills.

The burden of proof as regards investment rested with the manufacturers and they supplied figures showing the appraisal value of some mills, the book value of others, and in two or three cases the actual cost of construction. On the basis of these figures they claimed that a fair valuation for plant and equipment was at least \$25,000 per ton of daily capacity, to which, following public utility decisions, there should be added 10 or 15 per cent for going value and something for water rights, and also from \$10,000 to \$12,000 per ton of daily capacity for working capital. In their brief filed with

the Circuit Judges<sup>1</sup> counsel for the manufacturers gave the following summary of their claims:

We conclude our discussion of this phase of the evidence by stating that we are amply justified in claiming that we have proven with reasonable certainty that the value of the average investment of the parties to this inquiry, upon which they are entitled to a just and reasonable rate of return, is as follows:

	Per daily ton capacity
Newsprint paper plant and water power development.....	\$27,500
Going value.....	4,675
Working capital.....	12,000
Total.....	\$44,175

The publishers contended that the appraisals offered by the manufacturers were made at inflated war prices and that the actual cost of investment for plant and equipment was not over \$18,000 per ton of daily capacity, on the average, to which should be added about \$6,000 for working capital. They opposed the addition of anything for going value and water rights, so that the fair investment figure from their standpoint was about \$24,000 per ton of daily capacity. In their brief before the Court, counsel for the publishers failed to explain their position on this point.

The Commission, apparently, was not greatly impressed by the legal argument of counsel for the manufacturers in support of the application of public utility principles to this case, for in its award it rejected the proposition of adding 10 or 15 per cent to the investment for going value, but failed to indicate what investment figure it took or to establish clearly what principles it adopted. The Circuit Judges in their award upheld the manufacturers completely, ruling that in this case

<sup>1</sup> Before the United States Circuit Judges for the Second Circuit in the matter of the inquiry to determine the Selling Price of Newsprint Paper, etc. Brief for the Manufacturers, p. 59.

the principles laid down in public utility cases should apply as far as possible, and setting up as a proper investment basis \$25,000 for plant and equipment, \$2,500 (10 per cent) for going value and \$12,000 for working capital, making a total of \$39,500 per ton of daily capacity.

#### VI. RATE OF PROFIT ON INVESTMENT

The positions taken by the manufacturers and publishers with respect to what was a fair rate of profit on the investment were as divergent as in the case of the investment itself. Witnesses produced by the manufacturers testified that from 12 to 20 per cent was a fair return for industrial enterprises and considering the hazards of the newsprint industry 20 per cent was a reasonable profit. Witnesses produced by the publishers on the other hand recommended 8 or 10 per cent as being a liberal return on investment for a business of this character. On the basis of an investment of \$40,000 per ton of daily capacity the 20 per cent profit demanded by the manufacturers required the addition of \$26.67 to the costs, making a price of at least \$80.00 a ton, while the investment and profits proposed by the publishers justified a price of from \$50 to \$55 a ton.

The Commission in arriving at what was a fair rate of profit sought to avoid the two extremes but was strongly impressed with the fact brought out in the course of previous investigations that none of the manufacturers, parties to the agreement, prior to 1917 had ever earned as much as \$10.00 a ton profit.<sup>1</sup> The Circuit Judges in reviewing the case adopted the rate of 15 per cent as fair and reasonable, and on this basis added \$19.75 a ton profit to the average cost of \$50.25, which

<sup>1</sup> See Commission's Supplemental Findings in the matter of the Selling Price of Newsprint Paper, October 19, 1918, p. 3.

they had computed; making a total of \$70.00 a ton or \$3.50 per 100 lbs. as a fair price. This rate, while liberal, could not be regarded as excessive, but figured on the high investment basis adopted by the Court, it produced a profit per ton almost double that which any of the companies earned during the years 1913-16 inclusive, and larger than that earned by any of the companies for the year 1917, which was one of unprecedented prosperity for the newsprint industry. In fact, the range of profits per ton for this year was from \$9.50 to \$19.43 with an average for the eight companies of about \$14.50, or about \$5.00 a ton less than the Court's figure.

#### VII. RESULTS OF PRICE FIXING

The Commission in its award rejected legal theories and undertook to apply economic principles. The Circuit Judges, however, arrived at their award by a curious mixture of legal and economic reasoning. They regarded the newsprint industry as a public utility in determining investment, but recognized that they were dealing with a competitive industry in fixing the rate of profit on investment. They stood for the appraised value of plant and equipment in determining investment, but would not allow the market price of pulp wood to be used in determining the cost of pulp and paper.

The Commission based its price upon the costs of the two large marginal mills whose product was essential. The Court used an average cost of eight companies as a basis, but escaped the difficulties resulting from the wide variation in costs by adding to it a large enough profit per ton to give even the two marginal mills more than they had previously earned.

The difference between the views of the Court and the views of the Commission with respect to investment undoubtedly accounts for most of the difference in the prices which they fixed. The Commission's attitude may have been influenced by the fact that it was furnishing the War Industries Board with costs, on which prices were fixed, for a number of important commodities such as steel, copper, lumber, hides and leather, and the Chairman of the Commission was a member of the Committee which fixed these prices. Before this Price Fixing Committee, legal principles and court decisions found no place. Prices were fixed according to the deliberate judgment of a group of able men after a full examination of the facts.<sup>1</sup>

The Circuit Judges, however, were not influenced by the government policy with respect to price fixing during the war. In dealing with this as a public utility case, in so far as the question of investment was concerned, they arrived at a price which seemed incompatible with the circumstances giving rise to the proceeding and which yielded profits quite in excess of those previously obtained in the industry.

The outcome of the case may be regarded as a complete victory for the manufacturers. They escaped trial for the violation of the Sherman Law by signing the agreement with the Attorney General, and succeeded in getting a price for their product at least as high if not higher than they would have obtained if there had been no proceeding of any kind. One of the companies which obtained for the year 1918 an average price of about \$3.50 per 100 pounds was willing to contract and did make a number of annual contracts at the beginning of the year for \$3.15. Furthermore, the maximum price of

<sup>1</sup> See F. W. Taussig, "Price-Fixing as seen by a Price-Fixer," *Quarterly Journal of Economics*, vol. xxxiii, p. 205.

\$3.75 $\frac{1}{2}$  fixed by the Commission as of July 1, 1918 represented about the market at the end of the year when the annual contracts for 1919 were made. In fact some of the Canadian manufacturers, parties to the agreement, offered contracts for the year 1919 at less than this price.

Viewed from the standpoint of the public the results obtained in this proceeding hardly seem commensurate with the expense of several hundred thousand dollars to which the publishers, manufacturers, and government were put. It is now generally recognized that the long fight between the publishers and paper manufacturers has worked a positive injury to both. Government investigations and price fixing during the war undoubtedly tended to discourage and retard the expansion of the industry. This was particularly true of the prices fixed by the Canadian government, which were somewhat lower than those established in the United States. During recent months the revival of business and the excess profits tax have stimulated such a volume of advertising and consequently such a demand for print paper that the capacity of existing mills has been entirely inadequate to cope with the situation. As a result we are now witnessing a paper shortage and famine prices which eclipse anything that occurred during the war. It is to be hoped that manufacturers and publishers have profited by their experiences and that hereafter they will coöperate more closely to develop and maintain a supply of paper adequate to the country's growing needs. If they do, then the long and expensive fight will not have been entirely without beneficial results.

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## THE SCOPE AND NATURE OF THE LABOR TURNOVER PROBLEM

### SUMMARY

I. The issue, 329. — II. Criticism of prevailing methods of computing replacements, 331. — III. Analysis of the case for the replacement concept, 335. — IV. The case against the replacement concept, 340.

### I

THE definition and computation of labor turnover are undoubtedly not the most important phases of the turnover problem. Nevertheless a distinct divergence of opinion has recently arisen over the meaning of labor turnover which has significance beyond that of definition. It represents a difference in point of view concerning the scope and nature of the turnover problem itself and involves a tendency to take a subdivision of the fundamental problem under investigation and to treat it as the fundamental problem itself.<sup>1</sup>

From the outset more or less ambiguity has attached to the meaning of labor turnover. The more general view appears to have been that turnover embraces all separations in a force regardless of cause. The Rochester Conference of Employment Managers in May, 1918, embodied this meaning in its standard definition of turnover. The Bureau of Labor Statistics has followed

<sup>1</sup> This divergence of opinion is represented in the following recent articles: Emmet, "Nature and Computation of Labor Turnover," *Journal of Political Economy*, vol. xxvii, pp. 105-117; Brissenden, *Monthly Labor Review*, May, 1919, pp. 65-70, and November, 1919, pp. 91, 92; Crum, "How to Figure Labor Turnover," *Publications of the American Statistical Association*, vol. xvi, pp. 361-372; Douglas, "Methods of Computing Labor Turnover," *American Economic Review*, vol. ix, pp. 402-405; Hayes, "The Computation of Labor Turnover," *American Economic Review*, vol. ix, pp. 903-905.

the definition of the Rochester Conference in its studies of turnover statistics. In accordance with this view of the turnover, employment managers have customarily divided turnover into three parts — resignations, lay-offs, and discharges. This concept of the turnover will hereafter be referred to as the separation concept.

Recently, however, a point of view has developed which nominally would restrict turnover only to such separations as are replaced. Actually, however, as analysis of the proposed methods of computing replacements shows, the proponents of the replacement concepts go farther than to confine turnover merely to replacements. Their methods of computation entirely eliminate lay-offs from the turnover and include only such resignations and discharges as are *immediately* replaced. The replacement concept of the turnover is developed in the articles of Emmet, Brissenden, Crum, and Douglas, above referred to.

Were "turnover" a new and unknown word, having acquired no power to command attention and having attached to it no well aroused interest, the controversy could be settled by abandoning "turnover" and substituting two expressions, "separation rate" and "replacement rate." Because "turnover," by reason of its popularization and its power to evoke attention and interest, is too valuable to be abandoned, competition arises between the two concepts for its use. Usage not being uniform, one cannot speak of one meaning as right and the other as wrong; one can simply conclude that one meaning is preferable because it attaches the valuable symbol to the more important and significant of the competing concepts. The issue is, which of the two concepts is the more important and significant.

## II

Before analyzing the degree in which the replacement concept of the turnover realizes the advantages claimed for it, it is desirable to analyze the problem of ascertaining the number of replacements.

The method of computing replacements customarily recommended by the proponents of the replacement concept is to assume that during periods of increasing force all separations must be replaced and hence that in these periods separations measure replacements, and that in periods of decreasing force all hirings are replacements and hence that in such periods hirings measure replacements.<sup>1</sup> This method involves two errors. The more obvious and less important is that in periods of increasing force all separations are far from requiring replacement since they may be due to the extinction of certain jobs, and that in periods of decreasing force all hirings do not necessarily represent replacements, since they may represent the creation of new jobs. This is partially seen by Mr. Douglas, who would use, in periods of increasing force, only such separations as are actually replaced to measure replacements, but who nevertheless insists that in periods of decreasing force all hirings should be taken as replacements.<sup>2</sup>

<sup>1</sup> This method is proposed by Emmet, *Journal of Political Economy*, vol. xxvii, p. 114; Crum, *Publications of the American Statistical Association*, vol. xvi, pp. 361, 370; and Brissenden, *Monthly Labor Review*, May, 1919, p. 68. Mr. Brissenden sees the possibility of error due to postponed replacements but considers it negligible for periods of as long as a month — a view which cannot be accepted on account of the seasonal character of most industries, which results in the frequent postponement of replacements for several months. Mr. Brissenden fails to take account of the fact that even after postponed replacements have been allowed for, the number of accessions in the case of a decreasing force and the number of separations in the case of an increasing force are not necessarily replacement figures.

<sup>2</sup> *American Economic Review*, vol. ix, p. 403. Mr. Douglas says: "It is not correct, moreover, in the case of a declining labor force to deduct the positions vacated but not replaced from number newly hired since those newly hired have replaced some workers even

We may assume that the above mentioned source of error in the computation of the replacement rate has been eliminated — that in measuring replacements during periods of increasing force we take only such separations as are actually replaced, and during periods of decreasing force only such hirings as are actual replacements. A second source of error still exists; namely, that we are taking account only of *immediate* replacements and are failing to take account of *postponed* replacements. If we compute replacements on the basis of the payroll period or the month (as Mr. Crum and Mr. Douglas suggest) we fail in the case of an increasing force to take account of those separations in one period which are replaced in another period. Further — regardless of whether we compute replacements on the basis of the payroll period or the month, or take each entire period of continuous increase or decrease in the force as the period within which to compute replacements — we fail to take into account separations occurring in periods of *decreasing* force (when the hirings actually representing replacements are taken as the measure of replacements) which are replaced in periods of *increasing* force (when the actually replaced separations are taken as measuring replacements).

The error involved in the failure to take account of postponed replacements is large. This is due to the more or less seasonal character of most industries which

*if they have not replaced the particular ones whose positions are vacated."* (Italics are mine.) If we suppose a plant which is increasing its force in the machine shop but decreasing its force in the foundry, the net result being a decrease in the total force, it is somewhat difficult to imagine with Mr. Douglas that the machine operators hired over and above replacements are in some manner replacing the moulders and foundry laborers who are leaving, and are therefore to be treated as replacements rather than as a net addition to the force. And stranger still is the fact that had the changes in the force been such as to result in a net increase instead of a net decrease, the additional machine operators hired over and above replacements would not, according to Mr. Douglas, have been considered replacements of the leaving foundry workers at all, but replacements of foundry workers would be determined by the number of departing foundry workers who actually were replaced.

means that their forces expand and contract more or less regularly within the year and that the men who leave or are laid off toward the end of the busy seasons are replaced, not immediately, but at the beginning of the next busy season. Probably a majority of separations which do not require immediate replacement require replacement within a very few months.

In order to illustrate the error in the omission of postponed replacements we may assume a case in which several moderately pronounced seasonal fluctuations occur and compare the number of immediate replacements with the total number of replacements. We may assume that the year is started and ended with a force of 175; that in months of increasing force all separations are immediately replaced; that in months of decreasing force all hirings represent replacements for separations in the given month and that no new positions are created during the year, so that all hirings represent either immediate or postponed replacements.

	Size of force at end of month	Hirings	Separations	Replacements according to customary methods of computation
January.....	170	15	20	15
February.....	165	18	23	18
March.....	145	25	45	25
April.....	130	25	40	25
May.....	147	48	31	31
June.....	154	39	32	32
July.....	172	45	27	27
August.....	151	10	31	10
September.....	124	11	38	11
October.....	141	31	14	14
November.....	158	27	10	10
December.....	175	26	9	9
Totals.....		320	320	227

The method of computation proposed by the proponents of the replacement concept of the turnover thus would tell the manager of this plant that he had to hire 227 men to maintain his force. Actually, he hired 320, yet no net increase in the force occurred in the course of the year and no new positions were created during the year. The discrepancy is due to the fact that in addition to 227 immediate replacements, there were 93 postponed replacements of which the customary method of computation took no account.

When we ask how to compute correctly the number of replacements, we find that there are two figures instead of one in which the management is interested:

1. The number of replacements actually made during a given period.
2. The number of separations occurring during the period which require, or are anticipated to require, replacement.

The former figure includes both replacements of separations occurring during previous periods and replaced in the period under observation and replacements of separations occurring during the period under observation. The latter figure can only be estimated, since no one can foresee exactly how many of the separations not replaced in the period under observation will require replacement in the future.<sup>1</sup> Figures on replacements for the management should show both the number of replacements actually made during the period under

<sup>1</sup> If the busiest season of the year comes at substantially the same time, year after year, the uncertainty in estimating the number of separations which will require replacement in subsequent years can be reduced by taking for the period of observation, not the calendar year, but a year ending about the peak of the busy season. In building up the force for the busy season most separations of the year not previously replaced are replaced; and during the first half of the busy season few separations occur which involve postponed replacement. A year ending when the force is at the minimum is, of course, the least satisfactory from the standpoint of estimating the number of separations which will require subsequent replacement, because it involves the maximum number of hold-over replacements.

observation (subdivided to show the number due to separations in previous periods and the number due to separations in the period under observation), and the number of separations occurring in the period under observation which have required, or are anticipated to require, replacement (subdivided to show the number actually replaced and the number anticipated to require replacement). References, hereafter, to replacements so computed as to include all replacements, will be to the former of these figures — replacements actually made — unless from the context reference is clearly to the latter.

The period for computing replacements should be *not less than a year*. This period gives a complete seasonal cycle and hence should take account of most postponed replacements. A shorter period is likely to involve error due to failure to take account of all postponed replacements. Compilation of provisional monthly figures is desirable, provided their limitations and their provisional character are realized. For the reasons stated in the previous footnote, the annual period selected should be not the calendar year but a year ending at about the peak of the largest of the several annual busy seasons.

### III

As pointed out above, the proponents of the replacement concept of the turnover nominally advocate *all* replacements as the measure of turnover, and support the concept on the assumption that all replacements are being taken into account. The arguments for the replacement concept will first be stated and an analysis will then be made how far the alleged advantages are realized, whether replacements are computed by the methods proposed by the proponents of the replacement

concept or whether all replacements are taken as the measure of turnover.

Three principal reasons are advanced in support of the replacement concept:

1. The management wishes its turnover figures to be an indication of the character of its industrial relations, of the degree of discontent within the plant.<sup>1</sup> Instability in the force due to the extinction of jobs and the consequent lay-off of men is independent of the condition of industrial relations and hence introduces a distorting factor which causes separations to reflect industrial relations less accurately than replacements.

2. The management wishes the turnover figures to reflect the efficiency of the employment department in hiring and placing men and of foremen and other executives in handling them. Separations due to instability of jobs, being independent of these factors, cause separations less accurately than replacements to reflect the efficiency of the employment department or the efficiency of executives in handling men.

3. The management is interested in knowing how many men it must hire in order to maintain the force.<sup>2</sup> Since the hiring and breaking in of new men are a cost, the management wishes to know to what degree this cost is occasioned by its failure to hold its men or to provide them with steady jobs. Hirings do not give the desired information because they include net additions

<sup>1</sup> Emmet, *Journal of Political Economy*, vol. xxvii, p. 114, "The essential importance of labor-turnover records arises out of the fact that turnover figures, if properly compiled, furnish an accurate means of gauging the relative soundness of the labor policies of the organization. A volume of turnover larger than the prevailing local average for the industry may indicate decided dissatisfaction with wages, working conditions, etc. A relatively low turnover may be said to indicate the opposite, that is to say, a fair degree of contentment among the employees."

<sup>2</sup> This appears to be the most important as it is certainly the soundest reason urged in support of replacements as the measure of turnover. It appears to be the principal reason why Mr. Brissenden advocates replacements as the measure of turnover. "Labor turnover then, is meant to refer, or at least it ought to refer, to the amount of labor replacement which is found to be necessary in order to maintain a labor force." *Monthly Labor Review*, May, 1919, p. 69.



to the force. Separations do not give it because all separations are not replaced. Replacements, however, do give the required data since they show the number hired in order to replace old employees who leave.

In regard to the first two supposed advantages of replacements, that they measure more accurately than separations the degree of discontent within the force and the efficiency of the selection, placing, and handling of men, it may be that replacements measure one of these things; but it is hardly possible that they accurately measure all of them. So different are the conditions that if replacements measure one accurately, they can hardly measure the others accurately. As a matter of fact, replacements, regardless how computed, are not a reliable index to any of the above mentioned conditions. On the one hand, they reflect some separations which have no significance as evidence of the specific conditions of which an index is desired, and on the other hand they fail to reflect some separations which are significant. The degree of discontent in a plant, for example, so far as it can be reflected by separations, is best indicated by separations due to various causes of dissatisfaction. Lay-offs, discharges, and resignations for such causes as ill-health, returning to old country, better opportunity elsewhere, and many others, are not evidence of discontent.<sup>1</sup> Since replacements reflect replaced separations regardless of the reason for occurrence, separations for all of these irrelevant reasons may be reflected in the number of replacements.<sup>2</sup> On the other hand, no sep-

<sup>1</sup> A few discharges are evidence of discontent, where the discontent of the worker is responsible for the misconduct which causes his discharge. There is not a sharp distinction between resignations on account of better opportunity elsewhere and resignations due to dissatisfaction, some resignations on account of better opportunity being equivalent to resignations on account of dissatisfaction. On the whole, however, resignations on account of better opportunity do not represent discontent.

<sup>2</sup> Lay-offs, it is true, are not reflected in replacements when computed so as to include only immediate replacements, but they are in large measure reflected when replacements are computed so as to include all replacements, since many lay-offs are replaced after a short interval.

arations that are not replaced, however significant as evidence of discontent, are reflected in the number of replacements. In times of decreasing business especially, when many separations are not replaced, numerous resignations, due to dissatisfaction, may be unreflected in the number of replacements.

For the same reasons replacements are not an accurate index of the efficiency of the selection, placing, or handling of men. Only separations occurring for certain specific reasons are significant as evidence of these matters. Replacements may fail to reflect separations which are significant; and they may reflect separations which are of no significance.

Since replacements are a wholly unreliable index of discontent and of the efficiency in selecting, placing, or handling men, the question whether replacements reflect these conditions more accurately than separations is immaterial. It should be noted, however, that the advocacy of the replacement concept on the ground that replacements are more accurate than separations as an index of the conditions above mentioned, misconceives the true function of general figures on the stability of the force as a statistical aid to management. The true function of such figures is not to serve as an index of specific conditions but to direct the attention of the management to fluctuations in stability which call for investigation. This is necessarily so, because separations occur for such diverse reasons that figures which would be a good index of one condition would be worthless as an index of another condition. A separate index must be constructed to reflect each specific condition. The compilation of special indexes reflecting specific conditions in the plant is undoubtedly of value and is likely to be developed, but the first and most fundamental figure which the management needs is one which

will reflect every cause of instability and which will direct the attention of the management to significant changes in stability and prompt it to investigate them. There is, of course, always the possibility in the use of a general figure on instability that two compensating causes will be simultaneously operative and that the effects will so counteract each other that the presence of the causes will not be revealed by the general figures on stability. This possibility is lessened by the practice of subdividing the figures on stability into resignations, lay-offs, and discharges, and of compiling separate figures for each department in the plant. But the function of calling attention to significant changes in stability separations perform more satisfactorily than replacements, since the latter reflect only such separations as are replaced.<sup>1</sup>

The final reason advanced in support of the replacement concept is that replacements measure the number of hirings necessary to maintain the force. This, as we have seen, is not true of replacements when computed by the method proposed by the proponents of the replacement concept of turnover, since the method disregards the effect of discontinuous jobs upon the number of hirings necessary to maintain the force. It is true, however, of replacements when computed so as to include all replacements, *provided* "maintenance of the force" is not interpreted too strictly. A replacement rate is not necessarily a maintenance rate. The maintenance rate, being the rate at which men must be hired in order to maintain the force, implies that the force actually is maintained. If the force is allowed to de-

<sup>1</sup> From the standpoint of directing the management's attention to fluctuations in stability, replacements, when computed by the method proposed by proponents of the replacement concept, are especially unsatisfactory since they fail to reflect instability due to lay-offs. Taking industry as a whole, lay-offs appear to constitute from 25 to 40 per cent of all separations. See the writer's *Turnover of Factory Labor*, pp. 85-89.

crease, fewer hirings are, of course, made to replace the men quitting, but the force is not being maintained and the replacements do not represent a true maintenance rate. On the other hand, if the force is being increased, the hirings necessary for maintenance are less than the number of replacements actually made because new men are especially prone to leave and hence must be replaced more rapidly than the normal force.<sup>1</sup> If, however, we understand by "maintenance of the force" simply the number of hirings necessary to replace such separations as must be replaced in order to maintain the force desired, regardless of whether that force is increasing or decreasing, then it is of course a truism that replacements, including both immediate and postponed replacements, represent the number of hirings necessary to "maintain" the force.

#### IV

From the foregoing analysis, the case of the replacement concept of the turnover rests upon the ground that replacements, when properly computed, represent the number of hirings necessary to "maintain" the force, understanding "maintain" in the loose sense indi-

<sup>1</sup> The customary method of computing replacement and maintenance rates, which makes the rates a percentage of the average force, is unsatisfactory for this very reason, that it does not take into account whether the force is being increased or decreased. Suppose, for example, two plants, one beginning the year with a force of 1000 and ending it with a force of 1500, the other beginning the year with a force of 1500 and ending it with a force of 1000. If the monthly increase and decrease in the respective plants is the same during each of the twelve months, the average force in each plant during the year is 1250. Suppose that the number of separations in each plant is 500. Assume in the first plant that all separations are replaced. The replacement rate in the first plant, as customarily computed, would be  $\frac{500}{1250}$ , or 40 per cent. In the second plant there would be no replacements, and the rate would be zero. Yet the second plant could not feel itself superior to the first on the ground that with the same average force it was compelled to make no replacements, whereas the first plant was required to make 500 replacements. As a matter of fact, the first plant had a much better record than the second, for, despite the fact that it took on 1000 new men among whom separations would be much more frequent than the normal, it lost no more men than the plant which hired no new men.

cated. Immediate replacements have been found to possess no peculiar significance which warrants their acceptance as constituting turnover.

Between total replacements and total separations there may frequently be no great numerical difference — especially for periods of as long as a year. But altho the numerical difference between separations and total replacements frequently is small, there is an important difference between the replacement and separation concepts in point of view and in the conception of the fundamental problem under investigation. The principal objection to the replacement concept of the turnover is that it too narrowly and superficially conceives the problem to be studied; that it takes a part of the problem, a special phase or aspect of it, and conceives of this subdivision of the principal problem as being the principal problem itself. Consequently, it tends to force the principal problem into the background and to obtrude upon our attention merely a subordinate part of it.

The problem which the replacement concept of the turnover emphasizes, upon which it focuses attention, is the problem of maintaining the force. This, according to the point of view implied in the replacement concept, is the significant feature of the tremendous number of separations which characterize modern industry — the fact that they subject employers to the necessity of making numerous replacements in order to maintain their forces. Only when, and hence in appearance only *because*, separations require replacement, does the separations concept of the turnover take account of them. Whatever other reasons may exist for regarding separations as significant, these reasons do not, according to the replacement concept, warrant taking account of separations where replacement is not re-

quired. The causes of separations and the methods of reducing them are important only from the standpoint of reducing the number of replacements.

Surely, however, a broader and deeper problem is involved in the extraordinary number of separations which occur in modern industry than the problem of maintaining the forces of individual enterprises, and surely we fail to perceive the full significance of separations and are blind to the problem which confronts us if we regard separations as important primarily because they impose the necessity of replacements. Separations are significant for many reasons, whether they require replacement or not; and the fact that they frequently do require replacement is far from being the principal reason for being interested in them.

Separations are significant from three principal standpoints: as a cost, as a gain, and as a symptom of conditions which are of great importance quite aside from being a cause of separations. As a cost, separations are important not merely because they subject employers to the expense of making replacements. To the public they mean smaller output and higher prices. To the workmen they frequently mean more or less unemployment, trouble and expense in finding new jobs, lower earnings, and greater exposure to accident while learning new jobs, demoralization by idleness or frequent shifting, and impairment of the development of skill because of inability to find work in the regular occupation and the necessity of temporarily accepting other work.

As a gain, separations are important to all three parties as a means (tho far from a perfect one) by which men obtain the work for which they are best fitted, or at least better fitted. Separations frequently indicate that workmen take advantage of better opportunities elsewhere—in the absence of regular promotion systems,

the only means of advancement available to many workers. Separations are often the easiest or the only means of workmen's obtaining relief from the monotony and drudgery of highly subdivided, repetitive factory work. In times of good labor demand, separations are a fairly effective means for regulating working conditions, many employers being aroused by their high separation rate to the necessity of improving conditions.<sup>1</sup>

As a symptom, separations are significant because indicative of causes of discontent, of low industrial morale, and of defects in managerial policies. They point to such things as faulty selection of men, inadequate instruction of new hands, unsatisfactory physical conditions of work, excessive physical or nervous strain imposed on workmen, excessive hours of labor, wages too low to arouse the interest and enterprise of workmen, lack of opportunity to earn advances in wages and positions by demonstration of merit, faulty methods of discipline and supervision, failure of the management to win the loyalty of the men, better opportunities of employment elsewhere, revolt against the routine monotony and drudgery of modern repetitive factory work, faulty planning and organization of the work resulting in an unnecessary number of discontinuous or temporary jobs.

In view of the numerous reasons why separations are significant, it is clear that the problem is broader than the problem of maintaining forces. It is a problem of stability of employment. The question which it asks is

<sup>1</sup> The tendency is to regard separations only as representing loss, never gain. This probably is due to the tendency to regard separations too exclusively from the employer's standpoint; for to the employer nearly all separations appear either as costs or as evidence of costs — a discharge of an unfit worker, for example, being evidence of costs tho not a cost in itself. The good side of separations is much more important than has been recognised, and involves difficult and subtle problems. How far, for example, are separations a commendable attempt on the part of workers to assert their individuality in the face of the individuality-crushing work and discipline of modern industry?

not, "How many men must be hired to maintain a given force and how can this number be reduced?" but, "Why do men leave, what significance attaches to their leaving, and how can leaving for certain reasons be eliminated or reduced?" This problem consists of two principal parts:

(1) The problem of the instability of the men — that is, the degree of instability which would exist if there were no separations due to temporary or discontinuous jobs.

(2) The problem of instability of jobs — that is, the instability due to the temporary and discontinuous character of jobs.

Each of these divisions has the three principal aspects previously indicated: (1) a source of cost to public, labor, and employers, (2) a gain, and (3) a symptom of conditions in need of correction.<sup>1</sup> Of these three aspects the last is by far the most important.<sup>2</sup>

The problem of the stability of employment embraces all that is included in the problem of the maintenance of forces and much more. It embraces all separations whether they require replacement or not. It recognizes the necessity of replacing men who leave as one among the reasons why their leaving is important, but only as one and not necessarily the principal reason. It is interested in reducing the number of separations in order to lessen the number of replacements; but not for this reason alone. Its point of view is not primarily that of the business man, but equally that of public, business man and labor. The problem of the maintenance of forces is an outgrowth of instability of employment,

<sup>1</sup> Instability of jobs has, of course, a practically negligible gain aspect.

<sup>2</sup> The tendency, however, has been to regard the cost aspect, and especially the cost to employers as the most important aspect of separations. The point of view involved in the replacement concept of the turnover is an excellent illustration of this tendency. An attempt to emphasize the symptomatic aspect of separations is made in the writer's *Turnover of Factory Labor*.



existing only because men and jobs are unstable, and is one of the numerous special and secondary problems which constitute the major problem of instability of employment.

Since the separation concept of the turnover focuses our attention upon the fundamental problem of instability of employment, whereas the replacement concept focuses attention upon a special and secondary aspect of the principal problem, it seems desirable to adhere to predominating usage and to understand by "turnover," separations rather than replacements; and by "the turnover problem," the problem of instability of employment rather than the problem of maintenance of forces.

In conclusion, attention should be called to a concept of the turnover different from either the replacement or the separation concept. This concept would eliminate from turnover all separations due to instability of jobs and make turnover refer to the instability of men as distinguished from the instability of employment.

Figures on the instability of men are highly important, perhaps on the whole more important than figures on replacements. But altho it is important to have our attention directed to the instability of men, instability of men is but a phase of instability of employment, so that in directing our attention to the latter problem we are not overlooking the former. In order to focus attention on the broader problem, it seems preferable to apply "turnover" to instability of employment rather than to instability of men.

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## THE SEPARATION OF RAILWAY COSTS BETWEEN FREIGHT AND PASSENGERS

### SUMMARY

Three aspects of the problem, 346. — Separation of costs between freight and passengers, 348. — Cost separation required by Interstate Commerce Commission in 1888, abandoned in 1902, 349. — Tentative classification in 1915 and discussion thereon, 353. — Partial separation again required in 1916, but suspended on outbreak of war, 354. — A system of separation again established, going into effect January 1, 1920, 355. — Concluding remarks on the general problem, 360.

To secure the proper perspective on railway cost accounting it is well to bear in mind: first, that the railway industry supplies varied products, of which those other than transportation proper are logically to be regarded as by-products; second, that problems of cost accounting exist in every phase of railway operation, and differ in kind and extent as the phases vary; third, that the problem varies also according to the point of view of the student and the purpose he has in mind.

Let us develop these three points for a moment. First, the railway industry is one of varied products. True, its principal product is transportation, which is a service rather than a product: transportation of human beings, animals, freight, mail, express parcels, and the like. But in carrying out its function of transportation, a railway produces many other things besides. It manufactures and repairs equipment, for which it maintains elaborate shops, many of them extensive factories with thousands of employees. It operates for its patrons hotels, restaurants, and other similar conveniences. Many rail-

ways maintain their own water plants, electric light and power plants, ferries, ship lines, trucking fleets, and the like. The modern railway operates tie-treating plants and chemical and physical laboratories. In fact, the needs of an American railway system are so extensive, so varied, and so vital, that it operates many industries as part of its own primary function of producing transportation. Almost every industry presents some phase of the problem of cost accounting as a standard or measure of efficient and economic operation. A railway system, comprising many industries in one, offers a fertile field for the development of cost accounting methods.

As to the second point, railway cost accounting in its broadest aspect is as extensive and varied as are the several phases of the railway industry itself. Many of the accounting methods employed are the same as in other industries, yet every industry has problems that are wholly peculiar to itself. For example, railway shop accounting methods do not differ greatly from methods employed in similar shops outside the railway field. None the less shop accounting on the railways has developed a literature of its own.

The third point deals with the fundamental purpose of any system of accounts. Every presentation of a method of accounting for railway expenses that shall portray the relative cost of the passenger and the freight business must have as its guide and goal the purpose of the study. Primarily, two principal purposes may be involved. One is to set up a standard of operating efficiency; the other, to provide a basis or standard for rate making. This fundamental difference in purpose has been responsible for much of the controversy over the subject of railway cost accounting. Generally speaking, altho not in all cases, the railways have op-

posed the installation of cost accounting methods by regulatory bodies; in part perhaps because they feared that methods devised and developed by the railway companies themselves as tests of efficient operation would be utilized instead as standards of rate making, but chiefly because they were not satisfied that accurate and suitable methods had yet been devised. Generally speaking, too, regulatory commissions (federal and state) have favored the installation of some standard system of cost separation; but, perhaps because of the opposition of the railways, certainly because they were themselves groping their way to a clearer understanding of the subject, progress has been very slow.

The purpose of the present paper is not to attempt a survey of all possible topics under the general head of railway cost accounting, chiefly because such an attempt would not present anything peculiar to the railway industry. My effort will be merely to outline the development of that phase of railway cost accounting which pertains particularly to the railway industry — namely, a system of separating railway operating expenses as between the freight and passenger services. It is proposed to discuss, first historically, then analytically, the principle of separation of railway expenses as developed to date.

Let us glance first at the historical record. Section 20 of the Interstate Commerce Act of 1887 authorized a uniform system of railway accounts, and the first returns filed by railways with the Interstate Commerce Commission covered the fiscal year 1888. The report form submitted by the Commission to the railways for that year provided for the separation of costs between passenger and freight. A representative committee of railway accounting officers recommended that the provision be stricken out, but their recommendation was

not heeded, and the classification of the Commission directed the railways to charge to the one or the other service all directly assignable costs, and to apportion remaining costs on the basis of train-miles.<sup>1</sup>

Beginning with the statistical report of the Commission for 1888, and continuing through 1893, cost separation statistics were presented in the summary form shown below:

	CENTS PER TON-MILE			CENTS PER PASSENGER-MILE		
	Receipts	Cost	Profit	Receipts	Cost	Profit
1888	1.001	.630	.371	2.349	2.042	.307
1889	.992	.593	.399	2.165	1.993	.172
1890	.941	.604	.337	2.167	1.917	.250
1891	.895	.583	.312	2.142	1.910	.232
1892	.898	.582	.316	2.126	1.939	.187
1893	.878	.579	.299	2.108	1.955	.153
Six-year average	.934	.595	.339	2.176	1.959	.217

Averaging the results of the six years (a rough average, as no attempt is made to give the traffic of each year its proper weight), it appears that the Commission's computed profit per ton-mile was 0.339 cent, or 36.3 per cent, while the profit per passenger-mile was 0.217 cent, or 10 per cent.

In his report for 1892, the Commission's statistician, Professor Henry C. Adams, announced that further attempts at cost separation would be abandoned. He said: "It has been found that not more than half of the items of operating expenses can by any means be assigned to passenger and to freight service. This fact,

<sup>1</sup> "The amounts of the separate items are to be apportioned as between freight and passenger traffic. All expenses which are naturally chargeable to either freight or passenger traffic should be entered in their respective columns in the report; expenses which are not naturally chargeable to either traffic should be apportioned on a mileage basis, making the division as between freight and passenger traffic in the proportion which the freight and passenger train mileage bears to the total mileage of trains earning revenue. The expenses incurred in connection with mixed trains, not herein specifically provided for, will, for the present, be divided as one-fourth to passenger and three-fourths to freight." *Classification of Operating Expenses, Interstate Commerce Commission, July 31, 1888.*

taken in connection with the fact that the average cost per ton per mile and per passenger per mile, which was obtained upon the basis of the computation in question, was rarely used by commissioners in judging of fair rates, induced the railway commissioners to abandon this classification."<sup>1</sup>

Chairman Cooley, of the Commission, wrote in 1891 as follows: "I understand very well that it is absolutely impossible to so apportion the cost of freight and passenger service as to reach accurate results. . . . I may perhaps with propriety add that I can very well see that the application of the rule does not lead to correct information regarding the cost of passenger traffic considered by itself, and if the matter were exclusively in my hands I should probably make considerable change."

Along the same line is an interesting, I might almost say entertaining, committee report presented to and adopted by the annual meeting of the Association of (state) Railway Commissioners in 1892:

Every one will admit that if the items of cost of freight and passenger service could be obtained with substantial correctness the information would be valuable. . . . But we have not yet arrived at the point of being able to see how a body of inaccurate statistics, which are supposed to support another body of erroneous deductions, can be of practical value. . . . It is said a uniform basis must be adopted and maintained to secure the benefit of comparisons, but it is difficult to understand how, if one error is vicious and harmful, an accumulation of errors may become salutary; and it is quite as difficult to see how true statistical instruction may be derived by comparing a large number of errors more or less gross with each other. . . . So far, therefore, from the statistics obtained from this division being valuable as affording a criterion for railway rates, we believe that the very fact that this false information is liable to be used is the most cogent reason which could be given for ceasing to furnish a basis confessedly erroneous. A man who travels in the wrong direction is certainly as likely never to arrive at his destination as one who travels not at all.

<sup>1</sup> *Statistics of Railways, 1892*, pp. 86, 87.

At the same time, railway accounting officers, expressing themselves individually and through their association, were strongly in favor of discontinuing further attempts to apportion freight and passenger costs.

Thus the railways, the Interstate Commerce Commission, and the state railway commissions were united at this time in the opinion that the method of cost accounting then in effect was neither accurate, logical, nor helpful. It was accordingly discontinued by the Commission, and the matter lay dormant for twenty years. This may be said to mark the close of the first act in the drama.

The second act opens with a revival of the subject by the Interstate Commerce Commission. Statistical Series Circular No. 3, issued in March, 1914, was a tentative classification prepared for discussion and study. After a hearing in May of that year, the Commission decided to institute a system of separation at the earliest practicable moment.<sup>1</sup> Before doing so, however, it issued a revised tentative scheme of separation in March, 1915 (S. S. C. No. 4), which for the most part followed formulae suggested by representative committees of the railways, but left open for further consideration a proper method of separation for maintenance of way expenses. A hearing was called for May 21, 1915, to consider objections to the proposed formula, as well as suggestions for improving it.

Before discussing this hearing and its results, it should be noted that altho the railways coöperated with the Commission in the development of a formula at this time, they were by no means a unit in favor of any formula whatever. Thus a meeting of the Association of American Railway Accounting Officers in 1913 adopted a lengthy resolution presented by its standing com-

<sup>1</sup> 30 I. C. C. 676-682.

mittee on corporate, fiscal, and general accounts, which read in part as follows: "Resolved, that this Committee, after due and deliberate consideration, reiterates that no fixed rule for the division of common expenses between freight and passenger can be devised which will be equitable

to all carriers,

to the same carrier under all conditions, or

to all divisions of the same carrier."

Furthermore, the Commission's circular was careful to state that the special committee appointed by various railway organizations, altho it had made numerous suggestions for improving the Commission's formula, did not recede "from the position which the (railway) accounting officers had previously taken, namely, that no uniform basis can be adopted which will apply equitably under all conditions."

The hearing developed chiefly into a discussion of the four alternative bases for apportioning maintenance of way expenses suggested by the Commission, as follows:

1. The locomotive ton-mile.
2. The locomotive tractive-power mile.
3. The direct charges.
4. The gross ton-mile.

The principal witnesses were railway representatives on the one hand and representatives of the state commissions on the other hand. Discussion centered upon two of the four bases suggested. The railways for the most part advocated locomotive ton-miles as the best basis of apportionment, while the state commissions advocated gross ton-miles. The first method takes the weight of the locomotives, exclusive of tender, and multiplies that by the distance traveled, disregarding weight of train behind the engine; the second method ignores the locomotive, but takes the total weight behind the



locomotive, including tare weight of cars and weight of passengers or freight transported.

The opposing points of view were carefully and ably presented, but apparently neither group of advocates was able to convert the Commission, for when its final order was issued June 15, 1915, it frankly confessed itself unable to decide between the methods. In order to furnish a basis for further study of the subject, methods were provided for reports covering both gross ton-miles and locomotive ton-miles. In the language of the order, "It may fairly be said that the facts and arguments presented do not warrant the final approval by the Commission of either the gross-ton-mile or the locomotive-ton-mile at this time. . . . The disputed portion of the expenses will be required to be reported as undivided. Carriers will be required to compile locomotive-ton-mile data, and the relative merits of locomotive-ton-miles, direct charges, estimated gross ton-miles, or modifications thereof can be further considered with the aid of statistics thus made available."

For the year 1916, therefore, railways of Class I reported to the Interstate Commerce Commission their operating expenses separated as follows:

- Total expenses.

- Expenses related solely to freight service.

- Expenses related solely to passenger and allied services.

- Expenses related in common to both services.

- Apportioned to freight.

- Apportioned to passenger.

- Not apportioned.

- Expenses not related to either service.

In the Commission's classification on which this separation was based, provision was made either for direct assignment or for apportionment of virtually all ex-

penses other than those in the maintenance of way group. With regard to maintenance of way, expenses that could be directly assigned or apportioned (of which there are few) were to be so reported, while the remainder were to be reported merely as "undivided." Briefly described, the classification provided first, that expenses clearly pertaining to one or the other service should be so charged (i. e., direct charges); and second, that expenses common to both services should be apportioned on certain definite bases laid down by the Commission, with the proviso, however, that a large part of the common expenses under maintenance of way should not be apportioned on any basis whatever.

Taking the summary for Class I roads for 1916 as shown in the Commission's *Statistics of Railways* for that year, total expenses related solely to freight services were 47.5 per cent, and those related solely to passenger service were 16.5 per cent, of all operating expenses. Of the expenses common to both freight and passenger services, an amount equivalent to 13.2 per cent of total expenses was apportioned to freight, and 5.1 per cent to passenger service. The accounts "not apportioned" represented 17.5 per cent of the total. That is, 64 per cent, or nearly two-thirds, were directly assigned; 18.3 per cent, or nearly a fifth, were apportioned; while the remaining 17.5 per cent were left undivided. These were the results from the 1915 classification.

Of the maintenance of way expenses 11.4 per cent were assigned directly, 11.7 per cent were apportioned, and 76.9 per cent were left undivided.

Hardly had this partial method of separating expenses been installed when the United States became involved in the war. As a measure of relief from the burden of clerical work involved in the preparation of detailed

statistical reports to the interstate and state commissions, the railways petitioned for a modification of various of the requirements. Among others, the separation requirement was so modified for the year 1917 as to suspend the necessity of apportioning any of the expenses common to both services. The suspension was continued through the years 1918 and 1919.

Beginning January 1, 1920, however (and here begins the third act), the Commission reestablished a separation of operating expenses, along the following general lines:

First, all expenses directly related to the freight and passenger services are so assigned. This direct-charge method will apply to 100 of the 196 primary expense accounts, representing 66.6 per cent, or almost exactly two-thirds, of total operating expenses. Second, certain other expenses will be apportioned on definite bases laid down by the Commission. For example, yard maintenance will be apportioned according to switching locomotive miles, dispatching trains on the basis of transportation train miles, track maintenance on the basis of locomotive fuel cost, and so on. There are 44 of these accounts, representing 14.9 per cent of total expenses. Third, all other expenses are to be separated in the average proportions of other accounts in their respective group or class, as defined by the instructions. This is the basis prescribed for 52 of the 196 accounts, representing 18.5 per cent of total expenses. In effect, the procedure is to find the average percentage under the first two groups, namely, directly assigned charges and proportional apportionments, and then to apply that percentage to total operating expenses as a whole.<sup>1</sup> So far as affecting the average is concerned, the third group

<sup>1</sup> This statement is not strictly accurate, of course, but so many of the accounts in this group are general accounts that are to be distributed in the same proportions as other accounts in the same class, that the statement approximates accuracy.

of accounts play no part whatever; they are simply brought in to make the process complete.

Most important in the new classification is the adoption of the fuel-cost basis for apportioning the greater part of the track and some of the other expenses in the maintenance of way group. This is frankly a new departure, but, under a test conducted by the Commission, was found to produce percentages lying midway between the results under the locomotive ton-mile and the gross ton-mile bases.

It is clear, therefore, that while the classification made effective this year is more nearly complete than that of 1915, in that no items are to be reported as undivided; and while more definite bases are provided for many of the accounts than formerly (such as the cost-of-fuel basis applied to a large proportion of the maintenance of way expenses), yet it is far from being a complete or satisfactory system of cost accounting. This fact is frankly admitted in an informal memorandum recently issued by the Commission's statistician, from which are quoted the following extracts:

No one has proposed a method (for dividing common maintenance of way expenses) which can be demonstrated to be mathematically exact. Consideration should make it clear that the matter is too complex to permit of any exact solution.

**Again:**

To measure each one of the many influences on track expense exactly in figures under the varying conditions existing on the roads seems a hopeless task notwithstanding decades of discussion. It seems desirable to have a method adopted that is the most plausible in theory and practical in application, even if it is not free from all objections.

Then, after discussing the cost-of-fuel basis, the memorandum continues:

But with reasonable accuracy in accounting, the method cannot be very far wrong for obtaining relative figures. No known method is free from objections.

To this may be added the following brief quotation from the Commission's formal decision in the matter of a system of cost separation:

The assumption that railway cost accounting cannot be made sufficiently accurate for useful consideration in dealing with rates does not seem warranted. Altho not possible 20 years ago, it would appear that at the present time approximately two-thirds of the operating expenses of a railroad can be separated in a reasonably satisfactory manner. The separation of the remaining one-third is useful if a basis is selected which equitably measures the use which either service makes of common facilities.<sup>1</sup>

To sum up the historical record, we find that for six years during the first decade of the Commission's life a crude attempt at cost separation was made, but was abandoned by unanimous consent of all parties at interest. For a brief period prior to our entry into the war the attempt was revived, but had only partial application, the bulk of the maintenance of way expenses being omitted from the apportionment. We now have the attempt revived a second time, with much closer approximation to accuracy and completeness, but still on a method admittedly inexact and open to objection. How successful the method shall be depends on the future, and no definite opinion can be ventured until the results are in hand for at least the first year under the new classification.

We come now to a brief analysis of methods of cost separation, and to the general meaning of the effort to install such methods. I cannot here attempt a detailed study of theories of rate making, or of other considerations that are present in this problem. The field has been ably covered in articles by Lorenz, Cunningham, Cooke, Olmsted,<sup>2</sup> and others. My sole effort will be

<sup>1</sup> 30 I. C. C. 679.

<sup>2</sup> M. O. Lorenz, "Cost and Value of Service in Railroad Rate-making," *Quarterly Journal of Economics*, February, 1916; W. J. Cunningham, "The Separation of Railroad Operating Expenses between Freight and Passenger Services," *ibid.*, February,

very briefly to appraise the value of the record to date, and to present some inquiries as to future progress.

The outstanding difficulty in any attempt at railway cost accounting is to apportion to the freight or the passenger services those expenses that are common to both services. It is clear that a number of accounts must pertain exclusively to one or the other service. "Loss and Damage Freight" is clearly assignable to the freight service, the cost of operating sleeping cars to the passenger service, and so on.

In his illuminating analysis of this subject Cunningham divides railway costs into three general groups, as follows:

1. Those that may be definitely and accurately allocated. That is, direct charges.
2. Those that are susceptible of apportionment on some basis which will approximately represent the facts. That is, indirect charges susceptible of approximate separation.
3. Those that defy even approximate apportionment; that is, joint costs very difficult to separate.

Professor Cunningham listed twelve bases of apportionment used or suggested from time to time, as follows (and I may add that he did not exhaust the possibilities):

1. Train miles.
2. Train miles plus switch locomotive-miles.
3. Gross ton-miles.
4. Road locomotive-miles.
5. Road and switching locomotive-miles.
6. Locomotive ton-miles.
7. Car-miles.
8. Train miles plus car-miles.

1917; M. L. Cooke, "True Cost-fixing — What it Can Do for the Railroads," *Annals*, November, 1919; A. S. Olmsted, "Do 'Cost-of-Transportation' Exhibits in Railroad Rate Cases Show Cost?" *Ibid.*, January, 1916.

9. Weighted gross ton-miles plus locomotive-miles.
10. Direct expenses.
11. Operating revenues.
12. Tons of fuel consumed by locomotives.

I quote this list in full, more to indicate how many different methods or bases have been proposed from time to time, than to lend to a single one of them any suspicion of being a serviceable unit. In fact, serious question has been raised by Olmsted as to the value of *any* method of apportionment. He says: "Allocation (i. e., of direct charges) is the assignment of facts; apportionment is the determination of policy. The former concerns itself with what is; the latter with what should be. . . . Allocation aims to find what each service costs; apportionment aims to determine what each service ought to pay."

Whether we agree with Olmsted or not, there is little question that every form of apportionment is open to some objection. It smacks of the effort to raise one's self by the boot straps. This is especially the case where costs are apportioned according to other costs, rather than according to physical service units. Whereas a rough-and-ready method of apportionment may furnish a railway executive with information regarding the operations of his road that will serve as a standard of judgment from year to year as to the *relativity* of costs, it is far from certain that even a more refined method would supply exact data as to actual *unit* costs. This is particularly true when the same method is applied (again quoting the railway accounting officers)

"to all carriers,  
to the same carriers under all conditions, and  
to all divisions of the same carrier."

It certainly does not seem without significance that the railways, nearly half of whom maintain some form of

cost accounting for efficiency purposes on their own systems, have for thirty-two years been quite generally opposed to a uniform system of cost separation applied to all railways alike. Their principal objection, as we have seen, is based on their skepticism as to the practicability of a uniform method.

Let us suppose, however, that a complete separation is arrived at, what assistance will it render to regulatory bodies or to the railways themselves?

In the first place, separation between freight and passenger expense will throw some light on the heated and prolonged controversy as to whether the freight business is or is not carrying the passenger business; that is, whether passenger service is being operated at a loss, which must be made up from the profits on freight transportation.<sup>1</sup> Even were this conclusively proven by the facts, it is a question whether the state of public opinion regarding the high level of passenger rates, expressed in many general ways and often written into the laws of the respective states, would not prevent regulatory commissions from so adjusting passenger rates as to force the passenger service to carry its share of the cost of transportation. Furthermore, even if legally feasible, reasons of expediency might lead the Commission to pause before disturbing the level of passenger rates. Different railways might show differing results, and what the Commission would be obliged to consider would be the average for all roads. The rates of such railways as differed from the average could not be changed without disturbing the whole competitive fabric of rates.

Turning to the freight service, the point just made becomes even more emphatic. Not only would we have

<sup>1</sup> Our table on page 319 indicated that during the six years 1888-93 the profit from freight transportation was 36.3 per cent, as compared with 10 per cent in the passenger service. This result should not be accepted as either exact or conclusive.



an average of roads, but also an average based on countless commodities, and the question arises as to what assistance separation of expenses would afford to a body desiring to distribute rates equitably over all regions and all commodities. This point was well expressed as long ago as 1892 by H. M. Putney of the New Hampshire Commission, when he said: "It doesn't amount to anything to us when trying to fix a fair coal rate from the seaboard to our interior towns to know that the average cost of hauling all freight, including coal, baby carriages, benzine, silk and everything else, is a cent per ton-mile." The Commission itself has put in a mild disclaimer on the rate-making utility of cost separation, in the following language: "It is erroneous to suppose that the Commission is interested in statistics of this sort merely for the purposes of rate making. . . . It is the duty of the Commission to keep itself informed regarding the manner in which the railway business is conducted, and a knowledge of the variations in unit costs is valuable to us even if no rates are based thereon."<sup>1</sup>

Still other difficulties arise when it is attempted to separate costs as between line and terminal hauls, as between state and interstate traffic, and the like. The terminal separation would be necessary under any mileage scale of rates, yet such a separation cannot be made without carrying the work of apportionment under the present classification very much farther. Efforts of this sort have been made, notably in certain state cases in Wisconsin, Oklahoma, and Ohio, but they involved months of most intensive investigation and compilation.

In brief, and finally, it appears that for detailed rate-making purposes, whether freight rates or passenger rates, no scheme of cost separation yet developed can be helpful except in the most general way. The new classi-

fication will add considerably to the sum of information possessed by the student of railway affairs, and may well assist the railways themselves in furnishing standards by which to judge the relative efficiency of operation. It will unquestionably give the Commission valuable data along the same line. It will develop material for further discussion of the cost of service, value of service, and other factors in the philosophy of rate construction. For all these purposes it will be useful, but for purposes of detailed rate making, I feel that the complicated factors entering into the problem prevent this particular phase of cost accounting from attaining great utility.

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## NOTES AND MEMORANDA

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### A UNIQUE ARBITRATION CASE

THE supreme issue of the right to existence is seldom willingly submitted by a trade union to arbitration. In other words, the right of recognition is usually held to be non-arbitrable. The official records, even during the war when arbitration was so commonly resorted to, contain no instance of this sort. Yet one such has recently come before the National Adjustment Commission — the tribunal set up for peace-time arbitration in the shipping industry by the joint consent of longshoremen, steamship operators, and the United States Shipping Board. For this reason, altho the number of men immediately concerned amounted to but a few thousand, employed in and about the port of New York, the decision merits review. Furthermore, the case derives importance from the fact that it betokens an extension of unionism afield from the artisan class into that of clerical employees and office help.

As a concomitant of the general industrial unrest in New York, the clerical force on the docks during 1919 formed an organization known as the Steamship Pier Office Employees Association, which affiliated itself with the International Longshoremen's Association. The steamship operators stoutly resisted the advances of this organization, and a dead-lock resulted, finally culminating in a strike in November. The employers contended that these men were so directly representative of their interests, especially through the check which they were able to exercise upon the activities of the

manual laborers actually handling freight, that they refused point blank to deal with the union. The clerks on their part refused in many instances betterment of their conditions and increases of wages as individuals, declaring that they must be dealt with collectively as an organization. Finally both sides agreed to break the deadlock by submitting the question of recognition of the union and institution of collective bargaining to the National Adjustment Commission. This proffer was at first declined by us on the ground that the issue was not arbitrable, but finally, as affording the only way out, responsibility for the settlement was assumed.

The first step in solving the difficulty concerned the basic issue of recognition, and upon this point the distinction was sharply drawn by the Commission between those employees who might properly be designated as rank and file and those others who by reason of fiduciary responsibility or superintendence over others deserved more individual treatment. With this distinction attached, the Chairman added his vote to that of the two labor members, thus overruling the objections to recognition of any sort set up by the steamship companies.

The second step in analysis consisted of a classification of clerks, segregating them into the two groups above mentioned. The process was simple for those lying at either extreme; but it became extremely difficult for the border-line groups. Thus, superintendents, assistant superintendents, paymasters, time keepers, and the like were clearly employers' representatives, and as such were entitled neither to a standard minimum wage nor definite assignment of hours with overtime. Equally clear was it that the majority of the clerks, indistinguishable one from another, should have their wages and working conditions prescribed in wholesale fashion as members of the union. But a peculiar difficulty presented itself respecting the intermediate group of employees practically known as "chief receiving" and "chief delivery" clerks. Upon piers where large numbers of clerks were employed, they obviously were excluded from union conditions, as having superintendence over others; but in many

instances throughout the port the chief receiving and delivery clerks on smaller piers constituted the entire clerical staff. To exclude such persons, who were in reality at one and the same time employers' representatives and also rank and file, would have deprived the organization of several hundred members. The union contended that to exclude them cut the heart out of recognition of the union. At this point it appeared almost as if another *impasse* had been reached.

Finally, by the deciding vote of the Chairman, a third step in analysis resulted. The principle was enunciated that whereas persons representing the employers' interest because of their fiduciary character, or because of superintendence over others, might not be dealt with unionwise, this very exercise of authority or responsibility necessarily demanded a distinctly higher wage than was accorded the rank and file. In other words, the principle was laid down that responsibility and superintendence deserved recognition through a higher basic wage, which in itself for these employees must necessarily take the place of overtime compensation and an established standard minimum of pay. Thus considered, the Chairman's vote assigned the chief receiving and delivery clerks to the employer group, and exempted these men from union treatment. This was apparently a victory for the employers. But it was tempered by the recommendation, under penalty of a review of the case, that the employers should therefore compensate more liberally than they had done in the past for the responsibility and superintendence which had been alleged to attach to these positions, and which did not appear to have been paid for.

The case being thus decided, indications are to the effect that peace in the port will ensue. The rank and file will receive a minimum wage and overtime, as a result of the award. The forthcoming clerks will get a wage more suitable to their positions, and it is assumed that they will recognize the good offices of the union in obtaining for them this benefit. But the employers on their part remain protected, as it is held on principle that they should be, in the enjoyment of a personal and direct relationship to those who stand for them

in dealing with other employees. It is clear that only by preservation of this right to the employer can the discipline and control be maintained upon which the successful conduct of industry depend.

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### ECONOMICS IN THE BRITISH WORKERS' EDUCATIONAL ASSOCIATION

THE second and third sections of the Constitution of the Workers' Educational Association of Great Britain and the Dominions (known as the W. E. A.) read as follows:

#### II. OBJECTS

Its objects shall be: (a) To stimulate and satisfy the demand of working men and women for education; and (b) Generally to assist the development of a national system of education which shall ensure to all children, adolescents, and adults such education as is essential for their complete development as individuals and as citizens.

#### III. METHODS

It shall, in its capacity as a coördinating federation of working class and educational interests, exercise the power necessary to fulfill its objects: (a) By arousing the interest of the workers in Higher Education, and by directing their attention to the facilities already existing. (b) By enquiring into the needs and desires of the workers in regard to Education generally, and by representing them to the Board of Education, Universities, Local Education Authorities, and Educational Institutions. (c) By providing, either in conjunction with the aforementioned bodies or otherwise, facilities for the study of subjects of interest to the workers for

which necessity exists. (d) By the publication of literature, and by such other means as from time to time may be considered expedient.

The work carried on under the W. E. A. falls roughly into two divisions. First, the University Tutorial Classes. These are classes, limited to about thirty, the members of which pledge themselves to attend for three consecutive years, and to perform required reading and essay work. Each of these classes is in charge of some member of the Staff of a large university, who is chosen by the Joint University Board, for the district in which the class is held. This Board is made up equally of representatives of the university and representatives of the working men's organizations. Secondly, there are several hundred one-year classes and study circles, many of which are conducted by former Tutorial Class students, and a large number of public lectures, conferences, and week-end schools. It is the teaching of Economics as developed in the University Tutorial Classes that is of main interest to readers of this Journal.

In the year 1918-19, there were 156 of these University Tutorial Classes in Great Britain. This year (1919-20) there are many more. Out of the 156 classes in 1918-19, 63 were classes in Economics, and Industrial or Social History. These University Tutorial Classes meet one night a week, for two hours in the town or locality in which the class lives. The instructor travels from the university each week. The classes are composed almost entirely of working men or women in the manual or clerical trades. There is a very small percentage of small tradesmen, civil servants and the like. The age of the students tends to average about thirty; but there are many over that age. All the students attend these classes after a full day's work, or before a full night's work in factories, mines, or offices. Practically all have had a number of years' experience with the industrial system in their capacity as workers; many are heads of families and so bring a householder's point of view; some have acquired through events or travel a familiarity with many different parts of the

industrial world. A condition of membership is a pledge to attend to the end a three years' continuous course. This condition is, naturally, a selective instrument in drawing into the classes those workers only who wish earnestly to learn; and they often show an earnestness approaching passion. This fact determines the attitude both of the class and of the instructor. Each Tutorial Class has its library, made up of the best modern standard books on the subject studied. In economics the books, with a few exceptions such as Marshall are the same as would be used in a similar course of study undertaken in a University. The library is in the care of the class secretary-librarian elected by the class. The students can draw all the books out for their private reading; and they are in fact drawn out and read. In addition, the W. E. A. sells to its members special cheap editions of some of the books most used.

Each weekly meeting of these classes is for two hours. There is some variation in the way this period of class-room work is used. The usual method is for the instructor to lecture for the first hour, and then hold a discussion in the second hour. At the end of the meeting the instructor assigns a subject for essay writing, which is frequently suggested in the course of discussion. He also returns any essays of the previous weeks which he may have, with critical comments written on them.

Since these classes have the same members for three years, and the number of cases in which members do not attend with great regularity to the end is small, the course of study is made progressive. In the arrangement of the three-year courses in economics, and also in the ground covered, there is considerable difference between different instructors. Most of the courses, however, approximate a common type, and have similar general characteristics.

This common type is arranged somewhat as follows. The first year is devoted to the study of the economic history of Great Britain (perhaps not in the Dominion classes). Use is made of the simplest and most concrete material available and satisfactory. This study is made with the aim of trac-



ing out the development of the present economic situation, and also the development of economic functions and relationships. Maps and charts are used to a considerable degree. The second year is devoted to further analysis of the political, geographical and physical basis of industrial structure, with special reference ordinarily to English industry. Here, too, maps and charts are used. The order of these two years may be reversed, or the material interspersed differently throughout the two years. On the whole, however, the first two years are spent in the study of the facts of economic life, past and present, of the political, physical and geographical conditions underlying industrial life, and in trying to analyze the development of present economic relationships and structure. The third year is then spent in an analysis of the operation of the present industrial organization, and in a study of the economic position of the population and the distribution of wealth. The lectures are kept by most instructors as simply expository as possible. Usually the instructors follow a syllabus distributed to the class. In the discussions which follow the lectures, the broader questions of theory and ethics which are involved in the study are likely to come to the front. And the subjects which are assigned for essay work are calculated often to set the students thinking about the theoretical aspects of the material they are studying.

This plan is conceived primarily to give the students the background of fact and general knowledge which they must have in order to interpret the reading they do and the economic events they observe. In the discussions the lecture material is brought into relation with the collective experience of the class in industrial life and indeed also with long personal memories. In any one class as many as ten industries are likely to be represented. I have heard it said that classes made up of workers drawn from a variety of industries are likely to be better than classes in which all the members work in the same industry. Furthermore, many of the students have had some experience in local administration, trade union or otherwise, and therefore have a sense of the character of organization and the problems involved, in all forms. In

these discussions, the students learn how to express an opinion, but — still more important — they learn to have their own opinions discussed and challenged. This class-room contest is a great stimulus to study. The class brings together those individuals in the ranks of working men who most need such comradeship of study and opinion. The progress of the classes in essay writing is often slow, for many possess only the most rudimentary powers of expression in writing. Essay writing often is experience in an altogether new medium of expression, and one which puts their thought to a new and more critical test.

It is said at times that the students are as a rule too old to perform much genuinely original work. This may be true. Many of them have had their outlook on economic life so definitely determined before they begin this study that it is very difficult to effect fundamental change, perhaps. None the less the course of study does lead them to a broader understanding of the industrial organization of which they are a part and a witness. Under these conditions the method followed — study and analysis of historical material, and of material descriptive of present industrial structure and function — is the most helpful. For the minds of the students respond rather to new perceptions and new material than to general theoretical argument. Careful descriptive study is the best solvent for dogma.

If it be asked what motive inspires most of the students, no single answer is possible. But beyond a doubt it is true that most of them are acting merely on the vague ideal that intellectual development is a necessary condition to satisfactory life and citizenship.

The cynical may at this point be asking, What "brand" of economics is taught? The question is really answered by the description of the method pursued. The energy of the instructing force is devoted to stimulating the students to think for themselves, and not to telling them what to think. Every effort is made to bring them in touch with the material, which must be known before useful thinking is possible. No effort is made to assert any one set of views. Quite a wide diver-

gence of opinion and viewpoint is represented among the instructors of the various classes. As is natural, however, the W. E. A. attracts to it on the whole those young instructors who are impressed with the vital need of vigorous thought among the working classes, and believe that working-class thought is necessary for a satisfactory industrial situation. Most of them look forward to the time when working men will have an effective share in the control of their industrial life. However, the organization throughout is devoted to the idea that progress both in educational and industrial matters is to be accomplished only by the coöperation of all classes of the community.

Its attitude of class coöperation has brought the organization in conflict with that section of the English labor movement which is pledged to the doctrine of class conflict. This section of opinion is represented by the Central Labor College in London, where the course of instruction is built up strictly on the basis of Marxian doctrine, and where for example it is a rule that all instructors must be drawn from the working classes. The general standpoint of the W. E. A. organization in the matter of doctrine is well expressed in a review of Marshall's *Industry and Trade*, which appeared in the December, 1919, number of the *Highway*, the monthly journal of the W. E. A. "Since 1891 (the date of Marshall's *Principles*, 1st edition) the swing towards large scale production and standardization has been accelerated, and the scale of business organization has grown even more rapidly. Two other factors have, however, appeared in the field. One of these is the growing demand on the part of the workers for opportunities of self-realization and their revolt against conditions of industry which tend to rob them of their personality; and the other is the dawning conception that economic activity should not be primarily as a means of personal profit, but as a form of social service. These three, the economic efficiency of large-scale organization, the spiritual revolt of labor, and the claim of society to be abundantly supplied with the goods and services it requires, have each incontrovertible claims, and the great problem of constructive economics is to find an equation for them."

The effect of the W. E. A. work on the instructors, and on the universities from which they come, is second in value only to the value of the work to the students. The instructors in the main are the younger members of the staffs of the larger universities. Oxford and Cambridge sometimes elect Fellows for this work in particular. Usually the instructor sees something of many of the members of his class in their homes, as well as in the class room. He cannot perform the instruction without getting an understanding of the industrial and home life of his working-class students. Furthermore, he benefits in his work from the knowledge of the students of the particular industries they are engaged in. There is, in short, an exchange of knowledge and experience. The instructor is helped to get a knowledge of great sections of the industrial organization, particularly of the mysteries of production. He has exceptional opportunity for getting light on industrial relations and of observing the operations of the trade unions. He gets a knowledge of the policy and the administration of working-class movements generally.

The influence of the W. E. A. extends, however, beyond the particular instructor. The Tutorial Classes have become a link between the universities and the working classes, who heretofore have not had any relation to the universities. For example, the University Joint Board arranges for summer schools to be held on university premises. These are usually fortnightly courses of study, to attend which the students can get leave or vacation. Such departments as the Economics Department genuinely feel the stimulus of this new function. They are not only kept in touch with the industrial world, but they are in constant communication with those sections of it that they have had no bond with heretofore. This is the source of such a conception of a university as is set forth in the final report of the Adult Education Committee. There the university is pictured as the great instrument for communication of thought between all sections of the community; a communication vital for the success of an industrial democracy.

HERBERT FEIS.

## THE CAPITALIZATION OF THE LAND TAX

THE notion that the capitalization of land taxes gives a privileged position in the tax system to persons acquiring land subsequent to the tax levy has been finally dispelled, largely by the publication of Professor T. S. Adams' paper on "Tax Exemption through Tax Capitalization" in the *American Economic Review*,<sup>1</sup> June, 1916. Hence the question whether the land taxes which prevail in this country as part of our general system of wealth taxation have been capitalized, and the further question whether land taxes are unique in being subject to capitalization have come to be of but little practical importance. These questions, however, are of theoretical interest and in the view of the present writer the authorities on tax incidence have taken unsound positions on them.

In regard to the first point, it has been held with seeming unanimity that a land tax cannot be capitalized if it is part of a general tax, that is, if the tax rate that falls upon land value is equal to the rate that is levied upon other forms of wealth. Professor Seligman's exposition is typical. He says, "The truth of the matter is that the whole theory applies to the land tax only where it is the sole tax levied."<sup>2</sup> "It is clearly necessary to assume inequality of taxation. If there is no excess there is nothing to be capitalized. The theory applies only to taxes which are exclusive, or which exceed other taxes by a definite amount. Inequality of taxation is the cornerstone of capitalization."<sup>3, 4</sup>

<sup>1</sup> Vol. vi, p. 271.

<sup>2</sup> *The Shifting and Incidence of Taxation*, 3d ed., p. 170.

<sup>3</sup> *Ibid.*, p. 223.

<sup>4</sup> "If the two taxes (an income tax and a land tax) are equally heavy there is no amortisation (capitalisation) whatever." Pierson, N. G., *Principles of Economics*, English translation, London, 1912, vol. ii, p. 413.

"Every real tax, when not part of a well-organized system which taxes every kind of property or all receivers of wealth, can be shifted in this way (by the process of capitalization)," p. 202. "The same (that a tax has been capitalised) is generally true of all taxes upon land which are in addition to a regular system of taxes, a part of which covers

This conclusion is necessarily dependent upon the assumption that the rate of interest at which land income is capitalized decreases by the amount of the tax rate when a general tax is imposed. That is, that the rate at which land income is capitalized and the net income from land decrease in the same proportion due to the tax levy. If, for example, land income is capitalized at 5 per cent, land bearing \$500 rent yearly and expected to yield this sum indefinitely, would be worth \$10,000. If a general tax of 1 per cent should be levied, the net income from this parcel of land would be reduced to \$400, but if the rate of capitalization should be reduced to 4 per cent, the value of the land would remain at \$10,000: the land tax would not have been capitalized. The familiar analysis of tax shifting may be employed to show that the assumption in regard to the depression of the rate of capitalization by the amount of the tax is perhaps not warranted. But attention may first be called to a factor which appears to have been overlooked heretofore.

Land income is capitalized at a rate of interest that is lower than the rate earned from most other investments. The net rates of return from land and other forms of wealth tend to be

the revenue from land," p. 344. Plehn, C. C., *Introduction to Public Finance*, 3d ed., New York, 1909.

"Where a tax has been recognised as at once special and definitely fixed, it seems to pass out of the ordinary category of taxes into that of charges, a transformation only possible in the case of durable productive wealth, and most prominent in respect to land." Bostock, C. F., *Public Finance*, 3d ed., London, 1903.

"The effect of a tax on land which is merely one form of a more general tax on property or income will be quite different (from that produced by a special tax), since in this latter case the selling price of the land will not tend to be lowered, as its purchaser will have to pay no more taxes in consequence." Sidgwick, H., *The Principles of Political Economy*, 2d ed., London, 1887, p. 573, footnote.

"If the object of taxation be durable and the tax a special or exclusive one, the price of the object is likely to be reduced by an amount equal to the capitalised value of the tax. . . . What the prospective purchaser capitalises and deducts is not the entire tax on the land, but the excess of that tax over similar taxes upon other investments open to him." Ely, R. T., *Outlines of Economics*, 3d ed., New York, 1916, p. 706.

When an author speaks, as Ely does, "of the excess" of a land tax "over similar taxes," he may mean the actual excess of tax burden rather than the nominal excess. If so, no exception can be taken to the statement. But when capitalization of the land tax is made to depend upon an excess in the rate of the land tax as compared with the general tax rate, the actual tax burdens are assumed to be identical with the nominal tax burdens. It is in part the purpose of this paper to show that this assumption is not warranted, and, as well, waiving this assumption, to show the factors that make for actual inequality in tax burdens under a general tax.

the same: they could not be different in a competitive market. But due to the risk of loss being less in land investment than in most other forms of investment, and also to the desire for home ownership, the gross rate derived from land investments is less than the prevailing gross rate of return in most industrial enterprises. Consequently the imposition of an equal tax rate upon the two classes of investment will not reduce the rates of income from the two fields of investment by the same amount, provided the tax that falls upon industrial (non-land) enterprise is not shifted to consumers. This would be true since as the rates that are set in the competitive market for the two forms of investment represent the relative desirability of owning the two forms of wealth, the rates of return, in these two fields of investment after making allowance for the tax, must be relatively about the same after the tax impost as they were before; hence, the two rates being unequal cannot they decline by the same absolute amount. The lesser rate must necessarily decline less than the larger rate. For example, if the general rate of return from industrial enterprises should be 10 per cent while land is priced so as to yield 5 per cent, a reduction in the rate of return from industry from 10 per cent to 8 per cent, would not change the rate at which land income is capitalized from 5 per cent to 3 per cent, but to some point between 3 per cent and 5 per cent. That is, with these rates of return prevailing in these two fields of investment, if a general tax of, say, 2 per cent should be levied and if the rate realized in industry after the tax deduction should fall to 8 per cent, the price of land would be adjusted so that, say, 4 per cent would be derived from land investments.

So long as the price of land remained unchanged, in such a case, the return subsequent to the 2 per cent tax imposition would be 3 per cent of the land value. Land owners would desire to transfer their investments to industrial enterprises where they could earn 8 per cent. Their offers to sell, together with the reluctance of non-land owners to buy on a 3 per cent basis, would cause the price of land to fall. Thus the land tax would have been capitalized in part even tho the



tax rate levied upon land was in no degree in excess of the tax rate levied upon other forms of wealth; and, also, even tho the tax that fell upon wealth other than land was not shifted forward to consumers.

There is additional reason for accepting this conclusion that a land tax will be, at least, partially capitalized when a general tax is imposed upon all wealth. It is, namely, that the part of the tax which falls upon industrial enterprises may be shifted wholly, or in part, to consumers. If this is done, then clearly the price of land subject to the tax will necessarily fall since land income would be reduced without a corresponding decrease in the rate at which land income is capitalized. Indeed, if the tax upon industry were shifted entirely to the consumers, the rate of income realized from industry after deducting the tax would remain as it was before the tax levy but the rate at which land income is capitalized would not change. The land tax would then be wholly capitalized.

Assuming the tax to be wholly onerous, such shifting as would take place would result largely from the tax, which would encourage exportation of capital and discourage its importation; thus by decreasing the normal supply of capital it would increase the rate of capital return. The normal supply of taxable capital might also decrease somewhat, due to the shifting of investment, to some extent, from the lines where tax evasion is impossible to those wherein the tax can be evaded.

The generally accepted position of the economists would lead us to expect that such a tax by discouraging saving and encouraging spending would bring about a reduction in the supply of capital and thus raise the rate of income therefrom. But there is perhaps not much validity in this contention. Such a tax would fall upon expenditures as well as upon savings; it would reduce the demand for loan funds and for the products of capital goods and also the supply of loan funds and the supply of capital goods. We cannot be certain that such a tax would reduce the supply side of the capital market so disproportionately to the demand side as to bring about an increase in the rate of interest.



Assuming the government expenditure of the tax receipts to be beneficial to the industrial life of the people, the imposition of a general tax need not depress the net earnings from industry at all. And while the effect of such a tax upon land income is problematical, it is clearly possible that land rent might not increase by the amount of the tax payments; and in so far as it did not, land value would necessarily fall. The general conclusion must be that the capitalization of a land tax is not dependent upon its being in excess of other taxes.

Upon the question whether land value taxes are unique in being subject to the capitalization principle, Professor Seligman may again be quoted to show the conventional position of our authorities in taxation. He says, "Tax capitalization is not at all peculiar to the land tax."<sup>1</sup> "On this distinction (whether the commodity is durable or perishable) depend the phenomena of what is known as tax capitalization."<sup>2</sup> "If the special tax covers ten years of the consumption period of a house, the imposition of the tax on houses depreciates the value of the house by the present worth of a ten-year annuity."<sup>3, 4</sup>

Durability is necessary if tax capitalization is to result. While a tax impost may depress the price of a good that is to be subject to but one tax payment, yet properly speaking a tax is capitalized only in case prospective tax payments are discounted into a present value; that is, capitalized and deducted from present value. But, the relation to other taxes warranting it, which is admittedly the case if the tax be a special tax, capitalization does not necessarily result if the object taxed is durable and subject to future assessments. There is in addition to durability another quality without

<sup>1</sup> *Shifting and Incidence of Taxation*, p. 179.

<sup>2</sup> *Ibid.*, p. 221.

<sup>3</sup> *Ibid.*, p. 224.

<sup>4</sup> "The process of capitalizing taxes and the theory of incidence based thereon are applicable to virtually every form of durable property."

Adams, T. S., "Tax Exemption through Tax Capitalization," *Economic Review*, vol. 1, p. 371, June, 1916.

"This line of reasoning applies to all income-bearing property that may be bought and sold." Adams, H. C., *Public Finance*, New York, 1899, p. 406.

"The same may be said of a special building tax." Flehn, C. C., *ibid.*, p. 344.

See also quotation from Bostable in above footnote.

which the tax imposts will not be capitalized. Namely, the good must be such that the persons upon whom the tax falls are unable to recoup the tax payments from the purchasers of the good or of the services of the good, that is taxed. Tax capitalization will not result if the tax payments may be shifted to consumers.

Land value taxes are capitalized when their relation to other taxes warrant it, because land has these two characteristics. First, it is durable, and hence subject to repeated tax imposts which may be anticipated and discounted into a present value; and, secondly, its income is not subject to the control of the land owners. The tax payments fall upon the owners of the land and they cannot shift them to the purchasers of land service. For the tax imposition will not lead them to curtail the supply of land which is yearly offered on the market and thus they will be unable to increase the income from the land.

Is this true of other goods? The answer must be in the negative. The supply of most goods is subject to control due to the fact that new quantities are being produced. The supply of such goods tends to be adjusted so that the price received for the goods, or for the services of the goods, is just sufficient to cover marginal cost of production. Hence, an increase in cost, due to the imposition of a tax, will tend to cause a curtailment of the supply of such goods until price rises sufficiently to cover the tax.

If the current production of a good is small relative to the total supply on the market, as in the case of houses, there is, obviously, less possibility that a tax will lead to an immediate increase in the price of the good or its services than if the current production is very large relative to the supply on the market. And if for the time being new units of a good are not being produced, as in the case of houses in a city of decreasing population, a tax cannot increase the price of the good, or of its services. In the absence of production a tax cannot check production. Clearly, the greater the durability of a good the less will its total supply be affected by the current production or by withholding the current production,

and hence the less likelihood that a tax will be recouped from consumers. Rather, the greater is the likelihood that it will fall upon sellers, or owners in the case of goods whose services are sold, and for the time being reduce value, that is, be capitalized. But, to repeat, durability is not alone sufficient to insure this result. The new production of the most durable good may be of such importance to consumers that a check in production due to a tax levy will bring about an increase in price sufficient to cover the tax and thus prevent tax capitalization. It seems reasonable to believe that this would be true of houses in any of our typical American cities.

Tax capitalization does, however, apply to certain taxes other than taxes upon land value. A tax upon bonds that have already been issued submits ideally to the tax capitalization principle. A definite income is pledged to the bond holders and they are powerless to increase this income so as to recover the tax payments. The value of the bonds consequently declines by the present worth of the expected tax payments. A certain kind of tax levied upon monopoly will also be wholly capitalized; namely, a flat-rate tax. If a tax upon monopoly profit were made to vary in rate with the rate of monopoly profit the net income from the monopolized good would not necessarily decrease by the amount of the tax, nor would this necessarily result if a tax were levied upon each unit of monopoly product. However, the net income in these cases would be expected to show at least some decrease thus leading to partial capitalization of the tax. But if the tax were levied as a flat rate upon the profits of a monopoly, the price of the monopolized product would not be altered thereby. As it was set to give the greatest net profit, a given fractional reduction in the net profit will not make a change in price advisable. The tax will fall wholly upon the monopolist and will be wholly capitalized. Other than these two taxes, the land value tax seems to be alone in being subject to capitalization, save as special conditions will lead to the capitalization of other taxes, as for example, a building tax in a locality in which no new buildings are being constructed.

The above analysis is based upon the generally accepted position that a tax upon land value cannot be shifted. As has been pointed out by Professor J. R. Turner in this Journal,<sup>1</sup> the taxation of the value of agricultural land may lead to the exhaustion and abandonment of some land that is under cultivation and hence to an increase in the prices of agricultural products. But while this may prevent the value of most agricultural land from decreasing by the capitalized sum of the anticipated tax payments, it can hardly prevent some decrease in land value. If the value of any agricultural land is to remain as before the tax, the prices of agricultural products must rise sufficiently to cover the tax, and this is impossible unless some land is exhausted beyond recovery. For, as such price increase could come about only by a decrease in supply, as the demand cannot be assumed to change by the imposition of such a tax, it could not be such as to warrant the former supply; that is, prices could not rise by the amount of the tax, unless, as stated above, some land were exhausted beyond recovery. Barring this remote possibility, the conclusion is incontrovertible that if any rise in the prices of agricultural products followed the imposition of a land tax, it would not be sufficient to leave land owners in the enjoyment of the net economic rent which they received previously to the tax imposition. That is to say, taxes upon the value of agricultural land must be, at least, partially capitalized. Furthermore, this limitation is in no way applicable to urban land. Indeed, the pressure of a tax upon such land is in the direction of forcing land into the market and thus forcing the net income of land already in use below the point to which it is depressed by the tax. Similarly, a tax may force sufficient idle land into agricultural use to offset the tendency for land income to rise due to the abandonment of agricultural land.

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<sup>1</sup> Vol. 31, p. 353, February, 1917.

## REVIEW

### KEYNES, THE ECONOMIC CONSEQUENCES OF THE PEACE<sup>1</sup>

MR. KEYNES needs no introduction to economists. The high quality of his work is known. This book shows the sure touch, the wide interests, the independent judgment, which we expect. It shows, also, fine spirit and literary skill. On one point I note a lack of craftsmanship, or at least a lack of consideration for the reader; the table of contents is quite inadequate and there is no index.

Mr. Keynes's relation to the British Treasury and to the treaty situation is not unfamiliar. He was in the inner counsels of the Treasury during the war, and went to Paris with Lloyd George and the rest as one of a group of financial and economic advisers. His view of the situation was more aloof from the passions and prejudices of the moment than was the case with the responsible leaders. Toward the close of the Paris negotiations, he found himself much at odds with the others and withdrew from public position; and he has now returned to academic life. What he says in this book, however, is based almost entirely on information and material at the disposal of all the world. No official or quasi-official confidences are violated. Yet his intimate knowledge gives life to his treatment of familiar facts; and occasionally there is a slight lifting of the official veil. Thus on page 273 we read: "The financial history of the six months from the end of the summer of 1916 up to the entry of the United States into the war in April, 1917, remains to be written. Very few persons, outside the half-dozen officials of the British Treasury who lived in daily contact with the immense anxieties and impossible financial requirements of those days, can fully realize what steadfastness and courage were needed, and how entirely hopeless the task would soon have become without the assistance of the United States Treasury."

<sup>1</sup> *The Economic Consequences of the Peace.* By John Maynard Keynes, C.B., Fellow of King's College, Cambridge. New York, Harcourt, Brace & Howe, 1920.

Mr. Keynes's general position on the treaty is that of the searching critic — the advanced left. He believes that the treaty concedes too much to the vengeful and subjugating spirit of France. It imposes impossible terms on Germany and ignores the essential conditions of restoration and rehabilitation; it tries to create an impossible Europe. In its social aspects it is a capitalistic peace, dictated by bourgeois France and imperialistic Britain. The reparation burdens are beyond what Germany can fulfill. And the general policy of the treaty is not in accord with the pledges which the Allies gave to Germany in the communications which preceded the armistice. Speaking of Lloyd George's utterances during the British electoral campaign of late 1918, Mr. Keynes says: "This was the atmosphere in which the Prime Minister left for Paris, and these the entanglements he had made for himself. He had pledged himself and his Government to make demands of a helpless enemy inconsistent with solemn engagements on our part, on the faith of which this enemy had laid down his arms. There are few episodes in history which posterity will have less to condone — a war ostensibly waged in defense of the sanctity of international engagements ending in a definite breach of one of the most sacred possible of such engagements on the part of the victorious champions of these ideals."

On President Wilson's part in the treaty the judgment is not less severe. Moreover, it is given with so much emphasis and at so great length that the responsibility seems to be laid chiefly on President Wilson. Mr. Keynes's disappointment with the treaty finds its counterpart in his disappointment with the President. The high hopes inspired in 1918 are contrasted with the distress and heartsinking of 1919. The characterization of President Wilson can best be stated in Mr. Keynes's own words: "Seldom a statesman of the first rank more incompetent than the President in the agilities of the council chamber . . . his mind slow and unadaptable . . . a blind and deaf Don Quixote." The final judgment is given in this passage: "The clue once found was illuminating. The President was like a Nonconformist minister, perhaps a

Presbyterian. His thought and his temperament were essentially theological, not intellectual, with all the strength and the weakness of that manner of thought, feeling, and expression. It is a type of which there are not now in England and Scotland such magnificent specimens as formerly; but this description, nevertheless, will give the ordinary Englishman the distinctest impression of the President."

In all this there is just enough of truth to make it impossible to enter an unqualified denial. The President does sometimes use large phrases without having clearly in mind the exact content. He is not as agile in the council chamber as the astonishingly nimble Lloyd George. Once set on a policy, he moves from it slowly, if at all. But he is far from slow-witted; on the contrary, he takes in the meaning and details of a situation with extraordinary quickness. He is not easily "bamboozled"; but after a policy has once been agreed on after long discussion and much insistence from all sides, he is not ready to throw it over at short notice. It is quite true, as Mr. Keynes says, that the American advisers at Paris protested emphatically against the reparation policy advocated by the other Allies and finally embodied in the treaty. It is also true that "to his horror, Mr. Lloyd George, desiring at the last moment all the moderation he dared, discovered that he could not in five days persuade the President of error in what it had taken five months to prove to him to be just and right." But this outcome was the inevitable consequence of the agility and vagaries of Lloyd George himself. No one could tell whether the mood of that person during any five days would hold into the next five days. The key which Mr. Keynes finds in the theological and Presbyterian temperament of the President does not seem to me to fit. And I am puzzled by passages like the following: "In the sweat of solitary contemplation and with prayers to God he [the President] had done *nothing* that was not just and right; for the President to admit that the German reply had force in it was to destroy his self-respect and to disrupt the inner equipoise of his soul; and every instinct of his stubborn nature rose in self-protection." This degree of intimacy with



the characters of the actors is vouchsafed only to writers of fiction.

Coming now to the substance of the economic provisions of the treaty, I find myself in general accord with what Mr. Keynes says. He makes out an estimate of what Germany can do in the way of reparation which is based on an analysis of her imports and exports and the possible annual remittance to foreign countries. The maximum amount of annual excess of exports, even having regard to the advance over pre-war prices, he puts at \$500,000,000. This figure, allowing 5 per cent for interest and 1 per cent for repayment of principal, represents a present value of \$8,500,000,000. The maximum at the greatest stretch cannot, in his judgment, exceed ten billions. Some such figure, it is not improper to say, was reached independently by Professor A. A. Young in his estimates for the American financial advisers.

Against this is to be set the sum of at least ten billions, plus at least two and one-half billions more, which the treaty requires from Germany once for all. The contingent liability of Germany for ten billions more, which the reparation commission is given authority to impose if within her capacity, can then be dismissed as mere bluff — a sop to the bamboozled public of Great Britain and France. Certain it is that uncertainty is an evil of the gravest kind. The American advisers urged throughout that a specific sum should be set and the future thus left unclouded. The conditional and uncertain form in which the obligation for reparation has been left in the treaty cannot be long maintained.

I cannot agree with Mr. Keynes in all his conclusions concerning the weakening of German industries through the loss of territory. The coal of Silesia remains available as before, since it will not fail to enter Germany free of duty and since it can find no other outlet. The loss of Lorraine ore is a more serious matter. Mr. Keynes admits, as all must, that Lorraine had to go back to France. With France in control of Lorraine ore and Germany in possession of Ruhr coal, there is a political dislocation of the natural industrial connection. To speak in teleological terms, nature meant that the ore of



Lorraine should be smelted with the coal of Westphalia. Sooner or later I cannot but believe that a *modus vivendi* will be reached between France and Germany under which each will supply the materials indispensable to the other. But it is true that if the extreme policy of industrial imperialism dominates France, an unstable situation will remain and the economic and political future of all Europe will be gravely imperiled.

It is true also, as Mr. Keynes points out, that an immense deal depends on the commercial relations which will be reached under the treaty for central and western Europe. He advocates a Free Trade Union for the congeries of countries into which central Europe has been split up. This seems to me utopian. True, an endeavor by all the small states to establish each for itself a crude protectionist policy would be fatal. Schmoller himself, the apostle of Neo-Mercantilism, protested that no small state could carry out a sensible protectionist policy. The only safeguard against a disintegrating and impotent struggle is some sort of united action. Complete free trade, as suggested by Mr. Keynes, is quite beyond the possibilities. Even a Customs Union for central Europe would incontestably be vetoed by the Allies, most of all by Britain herself. The only promising policy is that of a series of commercial treaties permitting free movement of food and materials, with moderate and uniform duties on manufactures. Even to this the French would make objections. They want a number of independent and more or less hostile states, with whom France can bargain one by one in such way as to bring each of them through skillful discrimination into special trade relations of supposed advantage to France. All that can now be said is that after the five-year period of transitional arrangements which the treaty prescribes there will necessarily be a readjustment in the commercial field, and that this readjustment will be of cardinal importance for all Europe. Here is one of the most promising fields for the League of Nations, not as dictator, but as sponsor and arbitrator.

In regard to international loans, Mr. Keynes's proposals again are utopian. He puts forth a plan which he believes to

have been feasible in 1919, and which he still favors now that the smoke of the treaty struggle has cleared away. Its cardinal feature is that all inter-ally indebtedness shall be canceled. Great Britain, France, and the United States (the only lenders) should cancel all loans made by them to other allies. This would mean that Great Britain would come out roughly even, and that France and Italy would be greatly relieved; while the United States, being a lender only, would be the one country to make substantial concessions and sacrifices. "Such proposals involved an appeal to the generosity of the United States. But that was inevitable; and in view of her far less financial sacrifices, it was an appeal which could fairly have been made to her. Such proposals would have been practicable. There is nothing in them quixotic or utopian." Unfortunately I cannot but believe that the proposals were quite impracticable in 1919, and they seem to me to be so still. The American representatives at Paris could not possibly have consented to them then, nor would it be possible to secure the consent of the United States now. In view of what has happened in the United States since June, 1919, imagine what would have been the attitude of the American Senate on a treaty provision for forgiving all debts of the United States to the Allies! Whether eventually something of the kind may be brought about, I will not undertake to say. For myself, I hope it may. But it would be quite useless to propose such a course until the process of financial rehabilitation has been set going in earnest throughout Europe.

Mr. Keynes is right in urging that the treaty must be modified and the constitution of the League of Nations must be amended. No sensible man at Paris believed that the provisions could be carried out in detail to the bitter end. Whether it was wise on the part of the Americans to accede to them as they stand is one of those questions on which historians will probably differ forever. Mr. Keynes has indicated the difficulties of the situation in a passage which describes the influences that swayed the President better than any reference to his "Presbyterian" bias. "There were

certain very important points in the program of his French, British, or Italian colleagues, as the case might be, of which he was incapable of securing the surrender by the methods of secret diplomacy. What then was he to do in the last resort? He could let the Conference drag on an endless length by the exercise of sheer obstinacy. He could break it up and return to America in a rage with nothing settled. Or he could attempt an appeal to the world over the heads of the Conference. These were wretched alternatives, against each of which a great deal could be said. They were also very risky — especially for a politician. The President's mistaken policy over the Congressional election had weakened his personal position in his own country, and it was by no means certain that the American public would support him in a position of intransigency. . . . Besides, any open rupture with his colleagues would certainly bring upon his head the blind passions of 'anti-German' resentment with which the public of all allied countries were still inspired. . . . The cry would simply be that, for various sinister and selfish reasons, the President wished 'to let the Hun off.' The almost unanimous voice of the French and British press could be anticipated. Thus, if he threw down the gage publicly he might be defeated. And if he were defeated, would not the final Peace be far worse than if he were to retain his prestige and endeavor to make it as good as the limiting conditions of European politics would allow him?"

Mr. Keynes quotes at the end of his volume some noble verse, the authorship of which unfortunately I cannot place, expressing the sadness and the forebodings of the time. For myself I would conclude by quoting an adage from a familiar source:

Take up this mangled matter at the best;  
Men do their broken weapons rather use  
Than their bare hands.

F. W. TAUSSIG.

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